

# **STRATEGII MANAGERIALE**

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## **MANAGEMENT STRATEGIES**

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**Revistă editată de  
Universitatea „Constantin Brâncoveanu”  
Pitești**

**Anul XIX, nr. I (71) / 2026**

**Editura  
Independența Economică**

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**ISSN 2392 – 8123**  
**ISSN–L 1844 – 668X**

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# MANAGERIAL TOOLS FOR TEACHER MOTIVATION IN INTERCULTURAL PRE-UNIVERSITY EDUCATION

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**Abstract Purpose:** *This paper examines the managerial tools that support teacher motivation in pre-university education, with emphasis on intercultural contexts where cultural, linguistic, and social diversity increasingly shapes school dynamics.*

**Methods:** *A qualitative and comparative design was employed, based on document analysis of academic literature, international reports (2020–2025), and five country case studies (China, Finland, Uganda, Lebanon, Romania). Countries were selected to ensure variation in educational governance, economic development, and cultural diversity.*

**Findings:** *Four categories of managerial tools emerge as central to teacher motivation: financial, non-financial, developmental, and participatory. Evidence confirms that recognition, autonomy, supportive leadership, and continuous professional development exert a stronger and more sustainable influence than financial incentives alone. In intercultural environments, motivation additionally depends on empathy, inclusive leadership, and cultural competence. The Romanian case shows a mixed model, with significant emphasis on intrinsic motivation, digital risk management, and emerging intercultural competencies.*

**Implications:** *Educational managers should integrate HRM tools with intercultural policies, linking evaluation, development, and diversity-sensitive leadership practices. Targeted training, mentoring, and collaborative structures are recommended to enhance teacher motivation and engagement in multicultural schools.*

**Keywords:** motivation; managerial tools; intercultural education; teacher performance; HRM practices; leadership

**JEL classification:** I21; M12; M54

## 1. Introduction

Pre-university education is experiencing rapid transformation due to globalization, migration, digitalization, and the diversification of student populations. Teachers increasingly interact with learners from varied cultural, linguistic, and socio-economic backgrounds, creating both pedagogical challenges and opportunities for innovation. As a result, educational management must adopt adaptive strategies to sustain teacher motivation in multicultural settings.

Motivating teachers is essential not only for academic performance but also for broader societal goals, including social cohesion, labor market integration, and economic development. International literature consistently highlights several key determinants of teacher motivation: recognition, autonomy, professional development, and high-quality leadership. In intercultural environments, these factors are complemented by empathy, collaboration, and respect for diversity, which shape teachers' sense of belonging and efficacy.

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As Ma, Zain, and Kasim (2022) argue, constructive feedback, transparent evaluation, and structured training promote professional engagement. Romanian studies such as those by Antonovici și Săvulescu (2023) show that intrinsic motivation—prestige, recognition, self-fulfilment—remains pivotal even in systems with structural constraints.

This paper investigates managerial tools that support teacher motivation in intercultural pre-university settings, using a qualitative comparative approach. Case studies from China, Finland, Uganda, Lebanon, and Romania illustrate how culturally embedded practices influence motivational outcomes. The final objective is to provide evidence-based recommendations for school managers seeking to enhance engagement, inclusion, and performance.

## **2. Theoretical Background**

Motivational theories provide a robust framework for analyzing the needs and expectations of teachers. Maslow's hierarchy of needs (1943) emphasizes progression toward self-actualization, which aligns with teaching as a profession rooted in purpose and personal meaning. Herzberg's (1959) dual-factor theory distinguishes between hygiene factors (e.g., salary, working conditions) and motivators (e.g., achievement, recognition). Deci and Ryan's (2000) Self-Determination Theory identifies autonomy, competence, and relatedness as central to intrinsic motivation.

These frameworks are particularly relevant for education, where professional identity is tied to competence, relational trust, and moral purpose. Intercultural theories (Karanikola, 2025) highlight the importance of cultural understanding, empathy, and inclusive attitudes, suggesting that motivation in diverse contexts involves more than task performance—it involves meaningful connection and cultural responsiveness.

Hypotheses:

H1: Non-financial managerial tools—recognition, autonomy, professional development—have a stronger and more lasting impact on teacher motivation than financial incentives alone.  
H2: Intercultural competence training and inclusive leadership practices increase teacher motivation and engagement in multicultural school environments.

## **3. Methodology**

This study adopts a qualitative research design grounded in document analysis and comparative interpretation. The purpose of this approach is to synthesize existing evidence on teacher motivation and managerial tools used in intercultural pre-university education. The analysis focused on peer-reviewed articles, international reports, and policy documents published between 2020 and 2025, selected from reputable databases including OECD, UNESCO, MDPI, Frontiers, and Emerald.

### **Selection Criteria**

Documents were included if they met the following criteria:

1. **Relevance** to teacher motivation, HRM in education, or intercultural school settings.
2. **Methodological rigor** (e.g., empirical or conceptual studies with clear frameworks).

### 3. **Applicability** to pre-university education.

#### **Data Analysis Procedure**

The documents were systematically coded using thematic analysis. Four categories of managerial tools emerged inductively from the literature:

- **Financial tools** – salary schemes, bonuses, material rewards
- **Non-financial tools** – recognition, autonomy, school climate
- **Developmental tools** – continuous professional development, mentoring, international mobility
- **Participatory tools** – shared decision-making, collaborative leadership, partnerships

#### **Justification of Case Selection**

Five countries—China, Finland, Uganda, Lebanon, and Romania—were selected using a **maximum variation sampling logic** to capture a wide spectrum of:

- educational governance models (centralized, decentralized)
- income levels (high-income, middle-income, low-income)
- cultural diversity and migration patterns
- maturity of teacher training and evaluation systems

This design allows the study to highlight how culturally embedded policies shape motivational outcomes. While not statistically generalizable, the results are transferable to similar educational contexts.

### 4. **Comparative Analysis of Managerial Tools**

The comparative analysis revealed distinct approaches to teacher motivation across the selected countries:

- **China:** A centralized system emphasizing performance evaluation, promotion, and structured training. Motivation is driven by discipline, competition, and institutional loyalty.
- **Finland:** A trust-based model where teachers enjoy autonomy, participate in decision-making, and collaborate freely. Motivation stems from responsibility and peer respect.
- **Uganda:** Motivation is primarily financial, with emphasis on fair pay and job security. Limited resources and lack of intercultural policies constrain long-term engagement.
- **Lebanon:** Transformational leadership plays a key role. In times of crisis, empathy and emotional support are more effective than material incentives.
- **Romania:** Combines elements from various models. Programs like Erasmus+ and CCD training support development, but evaluation and recognition remain fragmented.

Table 1. Managerial Tools Supporting Teacher Motivation Across Countries

Country	Count	Financial Tools	Non-Financial Tools	Developmental Tools	Participatory Tools
China		Competitive salaries, bonuses	Public recognition, rankings	Structured training, evaluations	Directive leadership, clear goals
Finland		Stable salaries	Autonomy, professional respect	Flexible training, peer learning	Shared decisions, collegiality
Uganda		Salary, job security	Limited	Scarce opportunities	Low participation, formal hierarchy
Lebanon		Limited financial resources	Empathy, emotional support	Contextual training	Transformational leadership
Romania		Medium salaries, EU projects	Partial autonomy, informal recognition	CCD programs, Erasmus+	Variable participation, evolving leadership

This comparison highlights that motivation strategies must be tailored to local realities, balancing material needs with psychological and cultural factors.

**4.1. The Romanian Context: Empirical Evidence**

In Romania, recent studies reveal a mixed motivational landscape. Intrinsic factors—such as professional prestige, recognition, and meaningful work—remain central, despite ongoing concerns regarding salaries and workload. Continuous professional development, enhanced through national regulations and EU-funded programmes, contributes significantly to teacher motivation. Research also shows that digital competencies, intercultural training, and supportive school leadership positively influence teacher engagement in diverse classrooms. Antonovici and Săvulescu (2023) conducted a mixed-method study on Romanian pre-university teachers, showing that **intrinsic factors**—work recognition, self-fulfilment, professional prestige and belonging to an “honourable profession”—are perceived as the main drivers of motivation. At the same time, respondents reported a lack of equity between effort and rewards, and weak financial incentives combined with a heavy workload as major demotivating factors. The authors also underline the importance of continuous professional development as both a legal obligation and a motivational resource in the Romanian system, especially in the context of recent legislative changes (e.g., Law 198/2023 on pre-university education), which link career advancement, didactic degrees and access to leadership positions to training and performance criteria.

From a human resource management and quality assurance perspective, Calinoiu and Ana (2022) argue that teacher motivation is a key premise for improving the quality of Romanian pre-university education, calling for a more coherent integration of HRM policies—recruitment, evaluation, development and recognition—into school quality strategies. Their analysis stresses that motivation should not be treated as an isolated psychological variable, but as a systemic factor that mediates the relationship between educational policies and classroom outcomes.

At the level of sectoral HRM frameworks, Dobranici et al. (2025) propose a conceptual model for motivation in technological pre-university education, emphasizing the need for

managers to combine extrinsic tools (stable contracts, transparent promotion criteria, access to resources) with intrinsic and developmental instruments (feedback, career planning, pedagogical innovation, participation in projects). The study highlights that in technical schools, where labour market pressure and curricular changes are particularly intense, managerial tools that recognize teacher expertise and involve staff in decision-making can significantly enhance engagement and alignment with institutional objectives.

Digitalization adds another layer to teacher motivation in Romania. In a survey of 200 teachers from the Romanian pre-university system, found that perceived digital risks (data security, workload, uncertainty about platforms) significantly influence both motivation and intention to use digital tools. Their PLS-SEM analysis shows that higher risk awareness can reduce motivation unless schools provide clear support, training and communication regarding digital policies. The authors recommend that school managers adopt digital risk management and targeted training as explicit HRM tools, in order to sustain motivation for technology-enhanced teaching.

Intercultural and inclusive dimensions of motivation also emerge in recent Romanian research. A 2024 study by Szász, Orbán and Gergely on teachers attitudes toward inclusive education, conducted on a sample of Hungarian-speaking teachers in Romania, demonstrates that intrinsic motivation and perceived self-efficacy are strong predictors of positive attitudes toward inclusion of students with special educational needs. The findings suggest that in-service training that explicitly addresses inclusive practices can improve both self-efficacy and motivation to work in heterogeneous, intercultural classrooms.

At policy level, the OECD report *Improving the Teaching Profession in Romania* underlines that Romania has a dedicated teaching workforce but needs further modernisation in career management, initial training and continuous professional development, with clearer competency profiles and more flexible career paths. [OECD](#) TALIS data also show a relatively high proportion of Romanian teachers who report good relationships with school leaders, alongside relatively low reported levels of stress and limited time spent on administrative tasks, but also lower than average levels of professional collaboration (e.g., exchanging teaching materials). This suggests that Romanian schools have a potential motivational resource in positive leader–teacher relationships, which could be strategically amplified through participatory and developmental managerial tools, particularly in intercultural and inclusive settings.

Overall, empirical evidence from Romania supports the two hypotheses of this paper: non-financial and developmental tools (recognition, professional development, supportive leadership) appear to have a stronger and more sustainable impact on teacher motivation than financial measures alone;

motivation in intercultural and inclusive contexts is closely linked to teachers' perceived competence, self-efficacy and participation in targeted training and collaborative structures.

## **5. Discussion and Limitations**

The findings confirm that teacher motivation is context-dependent and multifaceted. In developed systems, autonomy and collaboration are key, while in resource-constrained environments, financial stability remains central. These patterns align with Herzberg's dual-factor theory, emphasizing the need to address both hygiene and motivational factors.

Intercultural education introduces additional complexity. Teachers must navigate linguistic and cultural differences, requiring not only pedagogical skills but also intercultural sensitivity. Training in intercultural competence and inclusive leadership enhances confidence and engagement, fostering a sense of belonging among staff and students.

However, the study has limitations. It relies on secondary sources and cross-sectional data, which may not capture long-term motivational dynamics. Many studies use self-reported surveys, introducing potential bias. Moreover, HRM models borrowed from business contexts may not fully align with educational values, where relationships and purpose outweigh productivity metrics.

In Romania, leadership training is improving but remains uneven. National strategies are needed to link evaluation, professional growth, and intercultural values. Mentoring and teacher networks could reduce isolation and support sustained motivation.

Future research should explore longitudinal impacts of intercultural policies and develop educationally grounded HRM models tailored to school environments.

Recent Romanian studies further illustrate these dynamics in a national context marked by ongoing reforms and moderate resource constraints. Empirical work on Romanian pre-university teachers shows that intrinsic factors (recognition, professional prestige, self-fulfilment) and opportunities for continuous training are perceived as more important than purely financial incentives, although low salaries and high workload remain critical demotivators. Research on motivation in technical pre-university institutions also underlines the need for integrated HRM strategies that connect evaluation, career development and institutional goals. Studies on digitalization and inclusive education in Romania indicate that risk perception and self-efficacy significantly shape teachers' motivation to adopt digital tools and to engage with diverse learners, and that targeted in-service training can enhance both motivation and attitudes toward inclusion. These findings reinforce the argument that effective managerial tools in intercultural settings must combine financial stability with autonomy, professional growth, and explicit support for diversity and digital competence.

### **5.1. Limitations**

The study faces several limitations. First, its reliance on secondary data may introduce reporting bias and restrict the ability to assess long-term motivational trends. Second, cross-country comparisons face challenges of contextual specificity, making direct transfer of managerial tools complex. Third, the qualitative design does not permit causal claims. Fourth, motivation is a dynamic construct influenced by socio-political conditions, reforms, and demographic changes, which may shift after publication. Future studies should incorporate longitudinal data, field research, and mixed-method approaches to validate and expand these findings.

### **6. Contributions to the Field**

This study contributes to academic knowledge and practice in three ways:

#### **Theoretical Contribution**

It integrates HRM motivational theory with intercultural education, offering a unified conceptual lens seldom applied in pre-university research.

### **Methodological Contribution**

It demonstrates a structured qualitative comparative approach suitable for cross-cultural HRM studies.

### **Practical Contribution**

It provides concrete managerial tools—financial, non-financial, developmental, participatory—adapted for multicultural schools, with actionable recommendations for school leaders.

## **6. Conclusions**

Teacher motivation is a strategic priority for educational systems aiming to ensure quality, equity, and inclusion. It requires a balanced approach that integrates financial support with recognition, autonomy, and opportunities for growth. In intercultural contexts, motivation is further shaped by empathy, cultural awareness, and inclusive leadership.

To build schools that are both effective and welcoming, educational policies must connect evaluation, development, and intercultural values. Romania already has some foundational policies—mobility programs, inclusive leadership initiatives—but these need to be expanded and systematized. Key recommendations include:

- Mandatory continuous training in intercultural competence
- Evaluation tools adapted to measure cultural sensitivity and collaboration
- Institutional support for mentoring and intercultural communities of practice
- Leadership development focused on empathy and diversity management

By implementing coherent and context-sensitive strategies, school managers can foster environments where teachers feel respected, supported, and motivated to contribute meaningfully to diverse learning communities.

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# NEW STRATEGIES AND GLOBAL CHALLENGES OF THE BANKING SYSTEM - FINANCIAL STABILITY AND ECONOMIC INNOVATION

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**Abstract:** *The accelerated transformation of the global economy has redefined both the functionality and structure of the banking system, generating a complex interaction between the pursuit of financial stability and the imperative of economic innovation. In a context shaped by digitalisation, market volatility and the emergence of advanced financial technologies, banks are increasingly compelled to recalibrate their strategic frameworks to maintain competitiveness and institutional resilience. This study investigates how banking institutions formulate adaptive policies and mechanisms in response to evolving macroeconomic conditions, under the influence of international prudential regulations and increasing pressures from fintech-driven change. The analysis highlights that financial stability is no longer based solely on systemic risk management, but also on intelligent technological integration, diversification of credit instruments, and optimization of capital allocation. At the same time, economic innovation emerges as a critical determinant of long-term sustainability, enhancing operational efficiency and promoting financial inclusion. The findings suggest that the success of contemporary banking strategies depends on the ability to harmonize regulatory discipline with innovation, stability with adaptability, and profitability with social responsibility. Therefore, the global banking sector is undergoing a phase of structural reconfiguration, in which the balance between risk control and openness to innovation defines the emerging paradigm of economic performance and international financial stability.*

**Keywords:** *Financial stability; banking innovation; fintech transformation; systemic risk management; corporate governance; sustainable finance*

**JEL Classification:** G10, G18, O160

## 1. Introduction

The global banking system is undergoing a profound transformation, driven by technological disruption, regulatory reform, and changing macroeconomic dynamics. Over the past decade, financial institutions have been forced to rethink their traditional operating models as they navigate an increasingly interconnected and volatile economic environment. The interplay between financial stability and economic innovation has become one of the central challenges defining the new global financial architecture. The 2008 financial crisis, followed by the COVID-19 pandemic and recent geopolitical tensions, has exposed the systemic vulnerabilities of global markets and underscored the need for resilient and adaptive banking strategies.

The profound transformations characterising the contemporary global economy have repositioned the banking system at the centre of debates on macro-financial resilience and the sustainability of economic innovation. In an environment marked by advanced financial integration, increased capital mobility, and unprecedented technological acceleration, banking institutions have been forced to redefine their strategic paradigms to ensure both the continuity of their systemic functions and their competitiveness in international markets. The expansion of digitalisation, the proliferation of fintech entities and the emergence of decentralised financial

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infrastructures are putting substantial pressure on the traditional banking model, amplifying the complexity of the financial intermediation process.

In this context, financial stability emerges as a global public good, dependent on the robustness of the regulatory framework, the effectiveness of macroprudential supervision, and the ability of institutions to internalize the endogenous risks of technological innovation. At the same time, economic innovation is an essential driver of intermediation efficiency, financial service diversification, and productivity growth in the financial and banking system. However, the interaction between innovation and stability generates a complex dialectic: while digital transformation stimulates competitiveness and expands financial access, it also introduces systemic vulnerabilities, new types of risk, and major challenges for the global regulatory architecture.

Therefore, analyzing the new global strategies and challenges of the banking system becomes indispensable for understanding how financial institutions can harmonize macrofinancial stability objectives with the imperatives of technological innovation. Studying this interaction provides the basis for assessing the sustainability of the banking sector in an economic ecosystem characterized by structural uncertainty, increased interconnectivity, and disruptive competitive pressures.

In this study, we set out to analyze the relationship between financial stability and economic innovation in the global banking system, characterized by interdependence and fragile equilibrium. On the one hand, innovation stimulates efficiency, competitiveness, and expanded access to financial services, while on the other hand, the rapid pace of technological transformation can generate structural risks that extend across the entire financial system.

Economic innovation, especially that based on digitalisation – such as blockchain technologies, artificial intelligence, open banking or instant payments – enables banking institutions to develop faster, safer and more personalised products. These changes increase operational resilience and provide new sources of revenue. However, they can also create vulnerabilities, such as technological concentration, cyber risks, dependence on external suppliers, or financial products that are not sufficiently understood by the markets.

Financial stability thus becomes conditional on the system's ability to integrate innovation without destabilizing fundamental risk management mechanisms. In recent decades, financial crises have shown that uncontrolled innovation - whether in complex derivatives or fintech banking activities - can amplify systemic risks.

The profound transformations of the global economy in recent decades have amplified the complexity of the international financial environment and redefined the essential functions of the banking system. Increased capital mobility, greater market interconnectivity, and the proliferation of technological innovation are creating an operating environment characterized by uncertainty, volatility, and increased competitive pressures. In this context, ensuring financial stability becomes a strategic imperative, and banking systems are called upon to strengthen their resilience through robust risk management mechanisms, alignment with international macroprudential standards, and the adoption of flexible and adaptable institutional architectures.

At the same time, accelerated digitalisation and the emergence of fintech ecosystems, together with the widespread use of disruptive technologies – artificial intelligence, blockchain, regtech and open banking – are shaping a new paradigm of financial intermediation. These developments are leading to a reconfiguration of both the development strategies of banking institutions and the ways in which they interact with customers, supervisory authorities, and other market players. The convergence between economic innovation and financial regulation requires

the formulation of coherent strategic responses that allow the capitalisation of technological benefits while maintaining the robustness and integrity of the financial system.

In this study, we set out to investigate, from an integrated perspective, the emerging strategies and global challenges of the banking system, through the lens of the interdependencies between financial stability, economic innovation, and contemporary regulatory dynamics.

We also seek to identify the structural determinants of the banking sector's transformation, assess the impact of emerging technologies on financial resilience, and formulate directions for strategic optimization in line with the new realities of the international financial architecture. Through this approach, the research contributes to the development of the theoretical framework and practical applications for modernizing the banking system in an era marked by uncertainty, globalization, and continuous innovation.

## **2. Review of the literature**

The relationship between financial stability and economic innovation has been a central theme in modern economic and banking research, particularly in the wake of the global financial crisis. According to Allen and Gale (2007), financial stability is a precondition for sustainable economic growth, as it ensures the efficient allocation of capital and mitigates systemic risk. Subsequent studies have expanded this notion by integrating the dimension of innovation as both a factor of competitiveness and a potential source of instability (Schumpeter, 1934; Beck, Chen, Lin, and Song, 2016).

In the post-crisis period, researchers such as Laeven, Ratnovski, and Tong (2016) have argued that banking innovation contributes to economic dynamism but can also amplify risk exposure when regulatory mechanisms are insufficient. The emergence of financial technologies (fintech) has intensified this debate by introducing new forms of disintermediation, decentralized financing, and algorithmic credit assessment. Financial Innovation for Global Sustainability offers essential insights and practical strategies for navigating the ever-evolving landscape of sustainable finance, demonstrating how FinTech can drive environmental sustainability and promote inclusive economic growth (Afjal, M., Birau, R. 2025). In other words, sustainable FinTech lies at the intersection of financial innovation, environmental sustainability, and social equity, reflecting a broader shift in how industries and disciplines are evolving to address the complex challenges of the 21st century. Philippon (2016) points out that digital finance increases efficiency and inclusion, but also poses challenges to traditional banking models and prudential supervisory frameworks. Various approaches have been used in the literature to understand the evolution of the banking system (Dekamini, F., et al 2024), and numerous empirical studies (Birau, R., Filip, R.D. , 2025) have shown a significant increase in financial stability.

Last but not least, we can say that in times of crisis, businesses that can adapt their financial strategies are more likely to withstand disruptions and emerge stronger (Dekamini, F., Abadi, A.D.H., Entezari, A., Birau, R., Pourmansouri, R. 2025).

From a regulatory perspective, Basel III and subsequent reforms have sought to strengthen the resilience of the banking system through higher capital requirements, liquidity coverage ratios, and macroprudential supervision (Bank for International Settlements [BIS], 2019). However, several authors have noted that strict regulations can constrain innovation and limit the availability of credit, particularly in emerging markets (Boot, Hoffmann, Laeven, and Ratnovski, 2021). This tension between regulation and innovation remains a defining feature of contemporary financial policy debates.

In parallel, the literature on corporate governance in the banking system emphasizes the role of institutional quality and managerial accountability in maintaining systemic stability. According to Levine (2004), robust governance mechanisms—transparency, board independence, and effective risk oversight—are crucial for aligning managerial incentives with the interests of shareholders and society. More recent studies highlight the integration of ESG (environmental, social, and governance) criteria into banking governance in response to sustainability imperatives and stakeholder expectations (Arjaliès & Mundy, 2013; Galletta, Mazzù, & Naciti, 2021). These frameworks are not only ethical benchmarks but also risk management tools that strengthen long-term financial resilience (Ehsanifar, M., Dekamini, F., Spulbar, C., Birau, R., Filip, R.D., 2023)

Another emerging research direction focuses on digital transformation and systemic risk. Carney (2019) and Brunnermeier et al. (2019) argue that the digitization of financial services creates both opportunities and vulnerabilities, as data-driven finance introduces new channels for contagion and cyber risk. In this regard, the concept of "technological resilience" has gained traction, referring to the ability of financial systems to absorb digital shocks without compromising stability (Borio, 2020).

In the European context, studies by the European Central Bank (ECB, 2022) and the European Banking Authority (EBA, 2023) indicate that fintech integration and the implementation of the EU Digital Finance Package are reshaping the competitive landscape, promoting innovation within a harmonized regulatory regime. These developments demonstrate a paradigm shift from reactive regulation to proactive governance, aiming to reconcile stability objectives with technological progress.

In general, the literature converges on the idea that future banking systems must balance innovation with prudential supervision, promoting an adaptable and robust framework. As Goodhart and Lastra (2018) argue, the ultimate challenge for policymakers and institutions is to design financial ecosystems that are simultaneously innovative, transparent, and resilient to systemic shocks.

### **3. Methodological approaches and analytical structure of the research**

This research adopts a qualitative and analytical methodology designed to examine the relationship between financial stability and economic innovation in the contemporary global banking system. The study combines theoretical synthesis with empirical observation, seeking to identify how financial institutions and regulatory bodies design and implement adaptive strategies in response to structural transformations in the global economy. The methodology is based on the principles of institutional economics and financial systems theory, emphasizing the interaction between policy design, governance mechanisms, and market behavior.

The research framework is structured around three analytical dimensions, namely: (1) the evolution of global financial regulation and its implications for stability; (2) the integration of technological innovation into banking operations; and (3) the strategic alignment between regulatory prudence and economic dynamism. Each dimension serves as a conceptual pillar for understanding how banks manage the trade-offs between innovation and risk, flexibility and control, growth and resilience.

In the context of intensifying economic interdependencies and the proliferation of global macrofinancial shocks, banking institutions are required to adopt increasingly adaptive strategic policies capable of responding rapidly to changes in the external environment. Economic transformations driven by market volatility, geopolitical shifts, and unpredictable economic cycles require banks to continuously reevaluate their business models and risk management tools. Thus,

the process of formulating banking policies becomes a dynamic one, based on anticipating macroeconomic developments, diversifying funding sources, and adopting early response mechanisms to systemic disruptions.

At the same time, the international prudential regulatory framework has a decisive influence on the strategic directions of the banking sector. Post-crisis regulations, reinforced by Basel III standards and future adjustments to the prudential architecture, aim to strengthen financial discipline and reduce systemic risks, but also generate challenges related to additional compliance costs, pressure on bank margins, and the need to optimize balance sheet structure. Banks are thus compelled to integrate macroprudential requirements into their operational strategies, developing robust capital, liquidity, and risk management models capable of maintaining competitiveness in a highly regulated environment.

In this changing ecosystem, technological innovation and the rapid development of fintech are a fundamental driver of financial performance and stability transformation. The digitization of processes, the use of artificial intelligence in risk assessment, the implementation of blockchain technologies, and the expansion of open banking services are profoundly changing the way financial services are provided and the relationships between market participants. These innovations increase operational efficiency and accessibility of services, but also introduce new types of vulnerabilities - from cyber risks to dependencies on global digital infrastructures - that require adapted supervisory and regulatory mechanisms.

The convergence of these transformations is shaping a new strategic paradigm in the banking system, focused on striking a balance between stability and innovation. Financial institutions are called upon to combine the robustness of prudential regulations with technological flexibility, to capitalize on digital opportunities without compromising structural resilience, and to create sustainable business models in an environment characterized by uncertainty and intense competition. This new paradigm highlights the need for modern banking governance that simultaneously integrates financial stability requirements, technological innovation pressures, and economic growth objectives, thus defining the direction of the global banking system's evolution in the coming years.

Methodologically, the study uses comparative case analysis, focusing on the European Union, the United States, and selected Asian economies as representative examples of regulatory diversity and technological progress. The comparative perspective allows for the identification of converging trends in financial innovation-such as the adoption of digital currencies, open banking frameworks, and fintech partnerships-as well as divergent policy responses rooted in institutional path dependence. This analytical strategy enhances the generalizability of findings and supports the development of a coherent theoretical interpretation of the evolving financial landscape.

The European Union operates within a complex supranational framework, in which directives and regulations (e.g., harmonized prudential standards, capital and liquidity requirements, regulations on digital financial services) aim to standardize prudential discipline and consumer protection in integrated markets. This model promotes convergence of standards, but generates fixed compliance costs and requires strong enforcement mechanisms at the national level. European regulation tends to be cautious, prioritizing systemic stability and the protection of user rights within the framework of single market integration.

The United States operates through a decentralized regulatory system, with federal and state agencies having overlapping responsibilities (Reserve Banks, FDIC, OCC, SEC, CFPB). This fragmentation offers flexibility and experimentation (e.g., fintech banking charters, innovative regulatory initiatives at the state level), but complicates macroprudential coordination and can

produce supervisory asymmetries. The US space exhibits a market-oriented approach: regulations often allow for faster technological experimentation, with an emphasis on competitiveness and innovation, while some stability tools are reactive and focused on remedying failures.

There are divergent models in Asia: China follows a state-led architecture, in which authorities rigorously regulate non-bank actors and financial big tech companies, applying direct interventions to limit perceived systemic risks; Japan and South Korea have adopted a mixed model, promoting sandboxes and pro-innovation initiatives, but strengthening supervision. Singapore stands out with a proactive and predictable architecture (the monetary authority adopts clear rules and regulatory sandboxes), aimed at attracting fintechns and establishing a regional hub.

On another note, we can talk about the new types and pace of technological innovation in the European Union, where fintech innovation is geared towards interoperability and protection (open banking, PSD2), common infrastructures and regulations for digital services. The pace of innovation is moderate, influenced by transnational compliance requirements. The result is homogeneous adoption, but fragmented at the operational level due to implementation costs.

The US is experiencing intense internal innovation, fueled by deep capital markets and the venture capital ecosystem; American fintech companies are rapidly experimenting with AI, cloud, and big data solutions, giving them advantages in global scaling. However, this speed comes with increased risks of operational disruption and risk concentration among large players (network effects).

China has seen massive adoption of digital payments and integrated platforms (super-apps), driving rapid transformation of financial intermediation. State-led innovation (including the development of a state digital currency) has led to accelerated technology integration, but also to strong regulatory interventions when systemic risks were assessed as excessive.

Singapore, Japan, and Korea have adopted a piloted innovation model: regulatory sandboxes, public-private partnerships, and infrastructure support policies (API pages, regtech centers). This model combines experimentation with stability protection, facilitating the responsible adoption of emerging technologies.

Implications for financial stability and institutional and regulatory differences determine distinct risk transmission trajectories. Through prudential harmonization, the European Union reduces the risk of cross-border regulatory arbitrage, but may slow down rapid innovation that could improve intermediation efficiency. The US, through accelerated innovation, gains from a competitive perspective, but experiences vulnerabilities related to supervisory gaps and risk concentration in non-bank platforms. China has demonstrated the state's ability to quickly temper destabilizing phenomena, but interventions can alter market signals and affect the efficiency of capital allocation.

Asian models such as Singapore and Japan suggest that a combination of sandboxes and clear standards can maintain an optimal balance between technological incubation and risk control. In all the areas studied, cyber risk management, data governance, and digital infrastructure resilience appear to be critical factors for stability.

The first lesson is that there is no single "optimal model"; convergence between stability and innovation is facilitated by institutions that can combine regulatory predictability with the ability to test new solutions (e.g., sandboxes, regtech frameworks). The European Union offers an example of coherent regulation at scale, but requires more agile mechanisms to support innovation; the US would benefit from better macroprudential coordination to limit the negative externalities of rapid experimentation; China illustrates the effectiveness of state intervention, but also the costs to the market and competitive signals.

Recommended policies include: developing proportionate regulatory frameworks (regulation-by-design), promoting interoperability and common standards for digital infrastructures, strengthening macroprudential supervision for non-bank actors, and adopting rigorous procedures for assessing algorithmic risk and operational resilience. Regional models, such as those in Singapore, show that predictability and regulator-sector dialogue can catalyse innovation without compromising stability.

#### **4. Theoretical context and recent developments**

In contemporary economic literature, the concept of financial stability has undergone a significant expansion in its scope of interpretation, going beyond the traditional framework focused exclusively on preventing and managing systemic risks generated by financial cycles and the interconnection of banking institutions. Under current conditions, financial stability is increasingly associated with the banking system's ability to function uninterruptedly and efficiently in an environment characterized by accelerated digitization, technological complexity, and increased exposure to non-financial risks. Thus, operational resilience becomes an essential component of stability, reflecting the ability of credit institutions to maintain their critical functions even in the presence of technological or operational shocks, including disruptions to digital infrastructures or malfunctions of IT systems.

Against this backdrop, cybersecurity is emerging as a central pillar of financial stability, as the proliferation of digital channels and electronic banking services amplifies exposure to cyberattacks with systemic potential. From an economic perspective, cyber incidents can no longer be considered isolated operational risks, but rather potential sources of financial contagion, capable of affecting confidence in the system, market liquidity, and the continuity of financial intermediation. Consequently, financial stability increasingly requires the integration of cybersecurity strategies into the macroprudential framework and banking governance processes, so that digital risks are systematically assessed, monitored, and mitigated.

At the same time, increasing technological complexity poses additional challenges for the architecture of the banking system. The adoption of advanced technologies, such as artificial intelligence, cloud infrastructures, or open banking platforms, enhances operational efficiency but introduces technological and organizational interdependencies that can amplify systemic vulnerabilities. From this perspective, financial stability depends on the ability of institutions to manage technological complexity in a coherent manner, through standardization, interoperability, and appropriate risk control mechanisms. Failure to manage these interdependencies can lead to the emergence of risks that are difficult to anticipate using traditional prudential tools.

Alongside operational and technological dimensions, financial stability is closely linked to how capital is allocated in an environment characterized by economic volatility and structural uncertainty. Interest rate fluctuations, rapid changes in financing conditions, and increased geopolitical uncertainty affect the investment decisions and balance sheet structure of banking institutions. In this context, optimizing capital allocation becomes essential for maintaining stability, requiring more sophisticated risk assessment, dynamic portfolio adjustment, and efficient use of financial resources in relation to prudential requirements and economic growth objectives.

In parallel with the redefinition of financial stability, economic innovation is playing a decisive role in ensuring the long-term sustainability of the banking sector. From a theoretical perspective, innovation is associated with increased productivity and improved financial intermediation efficiency, enabling banks to optimize internal processes, automate operations, and reduce the marginal costs of providing financial services. These efficiency gains are essential in a

context marked by pressures on profitability, generated by strict regulations and intense competition from non-banking players.

At the same time, economic innovation contributes to expanding financial inclusion by facilitating access to banking services for previously underserved segments of the population. Digital technologies reduce geographical and informational barriers, allowing for the personalization of financial products and more accurate credit risk assessment. From a macroeconomic perspective, this process supports a more efficient allocation of capital and can stimulate economic growth, thereby strengthening the role of the banking system as a fundamental intermediary in the economy.

In addition, continuous innovation intensifies the competitiveness of the banking sector globally, forcing institutions to adapt their business models and market strategies. Technology-based competitiveness is not only reflected in increased market share, but also in the ability to respond quickly to changes in consumer demand, integrate secure digital solutions, and maintain a sustainable balance between efficiency and risk control. In this sense, economic innovation and financial stability can no longer be viewed as conflicting objectives, but as complementary dimensions of a modern banking strategy.

## **5. Banks' adaptive strategies and mechanisms**

Digitization is an essential adaptive mechanism in contemporary banking strategies, having a profound impact on operational structure, risk management capacity, and competitiveness in the financial banking market. The literature highlights that digital transformation enables banking institutions to accelerate internal processes, optimize costs, and respond to increasingly demanding customer requirements for fast and personalized services (Manta, Vasile & Rusu, 2025). Therefore, the integration of technologies such as artificial intelligence (AI), modern IT infrastructures, and fintech solutions is no longer optional but a strategic necessity for survival and sustainable growth.

However, digitization brings with it new forms of technological risk. The increasing interconnection of banking systems with external technology providers, cloud services, and AI applications amplifies operational, strategic, and resilience vulnerabilities, requiring robust governance and risk management approaches (Basel Committee, cited in Reuters, 2024). Cyber threats - including phishing, malware, and data breaches - also remain important determinants of digital security, requiring regulatory frameworks and advanced protection practices (Waliullah et al., 2025).

Technological adaptation in the banking sector involves several key strategic directions:

1. *IT infrastructure modernization* - updating legacy technology platforms and adopting scalable architectures reduces operational vulnerabilities, increases system resilience, and supports large-scale digital processes.
2. *Integrating artificial intelligence* - AI models are used for risk analysis, fraud detection, and data-driven decision-making, increasing the accuracy and efficiency of critical functions (Manta, Vasile & Rusu, 2025).
3. *Use of blockchain technologies* - although adoption is variable, blockchain offers potential for high traceability and reduced transaction costs, strengthening trust in decentralized financial infrastructures (Adebayo & Kirikkaleli, 2023).
4. *Cooperation with fintechs* - partnerships with fintech providers facilitate collaborative innovation, API interoperability, and the expansion of digital services, improving the customer

experience and lowering barriers to entry into new markets (Assessing Digital Transformation, 2025).

We can say that banks' adaptation to digitalization not only enhances operational efficiency and transparency, but also strengthens their ability to respond to economic shocks and the dynamism of the global financial market. This process requires a continuous balance between technological innovation and prudent risk management, supported by up-to-date regulations and robust security practices.

## **6. Evolving prudential regulations and future outlook**

Prudential regulations are a fundamental mechanism for maintaining financial stability and preventing systemic crises in the global banking sector. They include minimum capital standards, liquidity requirements, and supervisory mechanisms that reduce the likelihood of individual insolvencies turning into major systemic shocks. The international standards developed by the Basel Committee on Banking Supervision, in particular the Basel III agreement, were the main response to the vulnerabilities revealed by the 2007-2008 financial crisis, strengthening banks' capital and loss-absorbing capacity (Consilium.europa.eu 2025).

A central element of the prudential updates is the implementation in the European Union of the CRR3 regulations and the CRD6 Directive, which transpose the Basel III standards into EU law and update capital and risk management requirements. CRR3 introduces adjustments to the calculation of capital requirements, modernises reporting and transparency requirements, and strengthens market discipline, while CRD6 provides the legal framework for macro- and micro-prudential supervision of credit institutions (PwC, 2024).

In 2025, all the main requirements of Basel III came into force in the EU, with the exception of specific components relating to market risk – for example, the Fundamental Review of the Trading Book (FRTB) – whose implementation date has been postponed until January 1, 2027, to ensure consistent implementation in the international context (European Commission, 2025). This postponement reflects the tension between the need for financial resilience and the competitive constraints of banks in global markets.

Another recent aspect of prudential developments is the legislative and supervisory decisions of European authorities aimed at maintaining or adjusting liquidity requirements in a way that ensures a level playing field for EU banks vis-à-vis their international counterparts. For example, certain rules on the net stable funding ratio (NSFR) have been maintained at transitional levels to avoid competitive disadvantages in the calculation of long-term stability requirements (Consilium.europa.eu, 2025).

Globally, the implementation of Basel III continues to face significant challenges, as some major jurisdictions, such as the United Kingdom and the United States, are reviewing the timing and manner of adoption of the final capital standards, sometimes referred to as the "Basel endgame." For example, the UK Prudential Regulation Authority has decided to postpone some capital requirements until 2027 in response to international uncertainties regarding regulatory coordination and pressures for competitiveness (Reuters, 2025).

Against the backdrop of these developments, three main directions for future prudential regulation can be identified:

1. *Strengthening capital and liquidity requirements*, maintaining high solvency thresholds to strengthen banks' financial base and reduce systemic risk. This is essential to ensure that institutions are able to absorb losses in periods of severe economic stress (Consilium.europa.eu, 2025).

2. *Simplifying and harmonizing the regulatory framework*, as proposed by the European Central Bank, by reducing the complexity of capital buffer rules without lowering the overall level of requirements, in order to balance resilience and operational efficiency (Reuters, 2025).

3. *Extending the scope of supervision to new risks*, including non-traditional financial risks and those associated with digital technologies, fintechs, and non-bank financial entities, to cover gaps that may lead to circumvention of traditional regulations and emerging vulnerabilities in the global financial system.

Prudential regulations are also evolving dynamically in response to global economic and financial realities, combining stability requirements with the flexibility needed to support innovation. This evolution reflects both the ongoing commitment to the resilience of the banking sector and the challenges posed by competitive and technological changes in the global economy.

## 7. Conclusions

This study shows that the relationship between financial stability and economic innovation within the global banking system is characterized by a dynamic equilibrium that depends on the quality of governance, the adaptability of regulations, and institutional learning capacity. In all regions examined—Europe, the United States, and Asia—financial institutions face the same structural dilemma: how to pursue innovation without compromising prudential soundness. However, empirical evidence suggests that the ways in which this balance is achieved differ substantially depending on regulatory frameworks, market maturity, and political orientations.

In the European context, the implementation of the Banking Union and the Capital Markets Union has strengthened systemic stability by creating supervisory, resolution, and deposit protection mechanisms within a unified regulatory framework (European Commission, 2022). These instruments have mitigated fragmentation risks within the euro area and enhanced cross-border financial integration. At the same time, the European Central Bank (ECB) and the European Banking Authority (EBA) have advanced initiatives such as the Digital Finance Strategy and the Markets in Crypto-assets Regulation (MiCA), promoting innovation in a strictly controlled environment. The European approach thus prioritizes "regulation-based innovation," emphasizing systemic safety and sustainable financing by aligning with ESG criteria. Although this model ensures high resilience, critics argue that excessive regulatory rigidity may hinder agility and limit the competitiveness of European banks compared to their US and Asian counterparts (Boot et al., 2021).

In contrast, the United States presents a more market-oriented model, where innovation precedes regulation. The expansion of fintech ecosystems—particularly in areas such as digital lending, payment systems, and decentralized finance—has been driven by venture capital funding and entrepreneurial experimentation (Philippon, 2016). Regulators, including the Federal Reserve and the Office of the Comptroller of the Currency (OCC), have largely taken a reactive stance, intervening *ex post* to address systemic vulnerabilities or gaps in consumer protection. This flexible framework has allowed for rapid technology adoption, but it has also produced episodes of instability, exemplified by the collapse of several regional banks in 2023 due to asset-liability mismatches exacerbated by digital withdrawals. The US model demonstrates that innovation without concomitant prudential alignment can amplify liquidity and confidence risks, particularly in conditions of monetary tightening (Federal Reserve, 2023).

In Asia, and particularly in economies such as China, Singapore, and South Korea, the relationship between innovation and regulation has evolved into a model of "state-coordinated adaptability." Governments play an active role in shaping digital financial ecosystems, ensuring

that technological progress aligns with macroeconomic objectives and policy priorities. The rapid expansion of fintech in China, driven by platforms such as Ant Group and Tencent, initially outpaced regulatory capacity but was subsequently tempered by a reaffirmation of state control over digital finance (Chen & Qian, 2022). Singapore, in contrast, represents a hybrid approach—balancing regulatory openness with strict risk management within the Monetary Authority of Singapore's Fintech Regulatory Sandbox. This model demonstrates that innovation can thrive within a predictable and transparent supervisory framework when regulatory experimentation is institutionalized.

Comparative analysis across these regions points to a convergence toward integrated frameworks that reconcile innovation with macroprudential stability. The European emphasis on harmonization, the American emphasis on market dynamism, and the Asian inclination toward regulatory experimentation each illustrate distinct governance philosophies that nonetheless share a common goal: maintaining resilience in the face of technological disruption. Empirical assessments by the World Bank (2023) and the IMF (2024) further confirm that countries that combine strong governance with adaptable regulatory regimes exhibit higher levels of both financial stability and innovation efficiency.

Another key finding concerns the role of corporate governance as a mediating factor in this balance. Financial institutions that integrate ESG principles, strengthen board oversight, and implement transparent risk management systems demonstrate greater adaptability to technological change and lower susceptibility to systemic shocks (Galletta et al., 2021). Governance frameworks that emphasize accountability and long-term value creation appear to moderate the trade-offs between innovation risk and stability outcomes. In contrast, weak governance and misaligned incentives—often evident in deregulated or fragmented markets—tend to exacerbate speculative behavior and increase systemic vulnerability.

With the proliferation of artificial intelligence, blockchain, and digital currencies, systemic stability increasingly depends on the ability of financial infrastructures to withstand cyber threats and data disruptions. International institutions such as the BIS (2023) have highlighted the need to integrate technological risk assessments into macroprudential policies, arguing that financial stability in the digital age requires both cybersecurity robustness and algorithmic transparency.

Taken together, all of this reinforces the theoretical proposition that financial stability and economic innovation are mutually reinforcing when integrated into a coherent governance and regulatory architecture. Systems that encourage responsible innovation—through proportionate regulation, digital literacy, and institutional accountability—achieve superior results in terms of both efficiency and stability. This suggests that the future of the global banking system will not depend on the dominance of a single model, but on hybrid frameworks capable of balancing prudence with progress.

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# THE EROSION OF AUTHENTICITY: CRIMINAL LAW IN THE FACE OF DEEPFAKES, OR DEEPFAKES: BETWEEN ARTIFICIAL INTELLIGENCE AND CRIMINAL LIABILITY

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**Abstract:** *Ab initio, it is necessary to understand what the deepfake phenomenon consists of, since it is regarded as a form of artificial intelligence, whereby its algorithms are used to substitute a person's facial, vocal, or bodily identity, generating a representation that is likely to be misleading and to produce relevant legal consequences.*

*The current regulatory framework does not provide adequate tools for criminalizing and punishing deepfakes, which can constitute fraudulent means, since their apparent authenticity can lead to the execution of acts of patrimonial disposition. This scientific approach aims to address the phenomenon from a criminal law perspective, as the essential issue is that deepfakes do not modify existing computer data, but generate new data. An evolutionary interpretation allows deepfakes to be included in the concept of "entering computer data that is untrue," but explicit legislative intervention is necessary.*

*The deepfake phenomenon forces criminal law to overcome its traditional reflexes and adapt to a reality in which identity can be algorithmically modeled and damage can be caused without physical contact. Future regulation is no longer a criminal policy option, but a systemic necessity: without specific rules, the legal order remains vulnerable to an instrument capable of undermining both social trust and the foundation of criminal evidence.*

**Keywords:** artificial intelligence, deepfake, content manipulation, computer forgery, violation of privacy

**JEL Classification :** K14

## 1. INTRODUCTION

The emergence of generative artificial intelligence technology has led to a new sophisticated context for the manifestation of criminal activity, a concept that has become popularly known as "deepfake." This essentially qualifies as falsified digital content involving a deep-learning algorithm combined with a purely apparent, plausible "reality" (the fake).

This digital manipulation clearly jeopardises the ability of criminal law to guarantee the concrete preservation of fundamental social values and the maintenance of law and order.

At this moment in time, there is no specific legislation in Romania that expressly regulates the consequences of using this phenomenon, which is frequently used to infringe on a person's right to their own image, dignity and private life.

The deepfake phenomenon can no longer be considered to be in its early stages, so it is imperative that the legislative field cease to be incomplete in terms of the effective way in which actions that violate the rights of individuals whose images are simulated can be punished.

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In the process of generating deepfake content, the algorithm has the ability to fabricate audio, photo, and video material that appears authentic, managing to copy the facial and vocal characteristics of the target person in order to recreate or manipulate any media content. In other words, in contemporary society, we can make it appear that a certain person is in a certain place or has reported something specific, when in fact that content is false, capable of misleading the recipient, even though it appears to be entirely "authentic."

## **2. The legal and criminal classification of deepfakes**

At this stage of regulatory development, deepfakes do not constitute a separate offense under Romanian criminal law, but they may represent the material means or concrete method of committing offenses already regulated by the Criminal Code.

The impact of deepfakes on crime is widely recognized, highlighting how this phenomenon can exacerbate or facilitate the commission of certain types of crimes (Bularda, 2023, 68).

The use of deepfakes could simultaneously affect several social values, which raises the issue of delimiting the primary and secondary legal objects of the crimes in question. Thus, deepfakes represent a challenge to the classical paradigms of criminal law, but we can find an indissoluble connection between them and crimes such as invasion of privacy, harassment, blackmail, fraud, threats, and computer fraud, etc.

Article 244 of the Criminal Code regulates the crime against property by breach of trust, namely "**Fraud**," which is directly and intrinsically related to the phenomenon in question, being the fraudulent means by which the victim is misled, i.e. the material element of the crime. Manipulated digital content constitutes a malicious act, through which a false but plausible representation of reality is created, causing the victim to dispose of their property or to assume various financial obligations, in a clearly prejudicial manner. In judicial practice, it is not uncommon to encounter fraud involving "false loans from non-bank financial institutions," which is increasingly used by individuals who take advantage of the weak identification systems of institutions and the ease of applying for a loan from non-bank financial institutions with a simple copy of their ID card. Thus, the perpetrator assumes the identity of other persons through the fraudulent use of their identity cards, enters this data on the platforms of non-bank credit institutions, and concludes credit agreements on their behalf, managing to cause significant damage.

In the context of fraud, the manipulated technological content is not simply an auxiliary means of achieving the material element, but rather an instrument of execution, indispensable to the fulfillment of the criminal intent. However, in principle, the possibility of liability for the crime of fraud cannot be ruled out in situations where a person is misled by deepfake techniques, including with regard to their own statements or conduct. For example, in a scenario where the director of a commercial company is shown in a video recording containing sensitive financial information, such as bank account or transfer details, the modification, through deepfake technology, of a digit in an IBAN mentioned in the material may lead to the director being misled and making a transfer to an account other than the one originally intended, under the impression that the action relates to the correct account.

In the case of the crime of "**violation of private life**," provided for in Article 226 of the Criminal Code, we can redefine interference in an individual's personal life, since, from the perspective of deepfake, there is no longer a limitation to traditional forms of intrusion into human life, which involve the capture, disclosure, or unauthorized use of real facts, but rather we are talking about the artificial creation of a fictional reality. This interference is all the more serious

because: the person concerned did not experience the facts attributed to them; there is no pre-existing "private fact" that can be contested; classic mechanisms of denial are often ineffective in the face of the visual and emotional impact of deepfake content. Thus, deepfakes do not reveal private life, but replace it, generating a form of symbolic expropriation of intimacy.

However, criminal intervention must comply with the requirements of Articles 8 and 10 of the ECHR. Not every use of deepfake technology constitutes a violation of privacy, even if it is not limited to the disclosure of intimacy, but also fraudulently recreates it. The determining criterion is the ability of the content to create the appearance of an authentic intimate reality, such as to affect the private life of the person concerned. Uses that are clearly fictional, satirical, or artistic, which do not induce such a perception, remain outside the scope of criminal law.

Criminal law is called upon to respond to this challenge by recognizing that privacy is no longer just a space of lived reality, but also of perceived reality.

Deepfake technology is emerging as a tool capable of amplifying the incidence of the crime of "**computer fraud**," as expressly provided for in Article 325 of the Criminal Code. In certain configurations, the phenomenon may fall within the scope of computer fraud when computer data is created or modified in such a way as to produce legal consequences.

The Romanian Supreme Court ruled in a decision handed down after extensive doctrinal and jurisprudential debate that the act of creating a fake account on social networks open to the public, using the name of another person as a username and providing real identification data of the individual in question, such as images, videos, information, meets two of the essential requirements of the offense, namely that of introducing computer data without authorization and that this action results in data that is not true. This identity theft involves a false manifestation of will and creates a perception contrary to reality regarding the owner of that account. (<https://www.revista.penalmamente.ro/nr1-2023/manipularea-continutului-prin-tehnologia-deepfake-raspunderea-penala-si-relatia-cu-infractiunile-de-fals-informatic-violarea-vietii-private-si-inselaciune>).

From a subjective point of view, computer fraud committed using deepfake technology usually involves direct intent, with the perpetrator acting with the knowledge that the content generated is inauthentic and seeking to produce a false legal result. The high level of technological complexity involved in creating a deepfake usually reveals a prior criminal intent and excludes the possibility of accidental conduct.

A close correlation can also be found with the crime of harassment, provided for in Article 208 of the Criminal Code. In the context of technological evolution, the phenomenon of harassment has taken on new forms, in which the use of artificial intelligence technologies, such as deepfakes, can amplify the severity and effects of illegal behavior. Deepfakes, with their ability to generate fake audio-video material that depicts real people in fabricated situations, create an environment conducive to acts of psychological, professional, or social harassment.

From a legal perspective, harassment essentially consists of any repeated or persistent behavior that seeks to intimidate, humiliate, or compromise a person's dignity, affecting their freedom or mental integrity. Deepfake technology can be used to extend these effects by:

1. Misleading the victim – presenting the person in fake material that simulates compromising statements, gestures, or actions;
2. Defamation and damage to reputation – disseminating false material online that can cause professional or social harm;
3. Psychological pressure and coercion – threatening to disseminate deepfake material can generate significant fear and stress, equivalent to traditional harassment.

Thus, the integration of deepfakes into unlawful conduct transforms harassment into a phenomenon of increased magnitude, requiring a legal interpretation adapted to new technological risks. In particular, legislative frameworks must recognize the ability of these technologies to produce effects similar to or even greater than traditional harassment, which requires the criminal or civil liability of the perpetrators, including by criminalizing acts of misleading and harming the dignity of the person, even when the fake material was not produced with the consent of the victim.

A recent case in Arad, Romania, highlights how deepfake technology can be used for harassment and abuse. A 17-year-old minor created and distributed sexually explicit images falsely depicting 12 female classmates using artificial intelligence applications specialized in image modification. By exploiting the unique viewing features available on WhatsApp and Instagram, the perpetrator was able to prevent the immediate preservation of evidence, thus limiting the victims' ability to file complaints or take other legal action.

This incident is just one example of many similar situations reported internationally, where approximately 98% of deepfake content is pornographic and 99% of victims are women or minors, according to a 2023 study by Home Security Heroes, an organization dedicated to preventing identity theft and online abuse. (<https://journals.sagepub.com/doi/10.1177/14614448241253138> )

### **3. Proposals for new legislation on the criminalization of deepfakes**

Amending the legislation to criminalize deepfakes requires not only the introduction of new articles in the Criminal Code, but also the development of an integrated regulatory framework covering procedural, civil, and preventive aspects. The legislation must ensure a balance between the punishment of illegal acts and the protection of freedom of expression, as well as between the effectiveness of enforcement mechanisms and respect for fundamental human rights. In this regard, the "lex ferenda" proposals include defining deepfake materials, clearly establishing the criminal and civil liability of the active subject, providing comprehensive protection for the victim, and establishing penalties proportionate to the seriousness of the offense.

Thus, the criminalization of deepfakes is an imperative necessity of contemporary criminal law, reflecting its adaptation to technological challenges and ensuring the effective protection of the persons concerned. Inspired by international practices and modern criminal law principles, Romanian lawmakers can transform deepfakes from a potentially abusive regulatory vacuum into a regulated and sanctioned phenomenon, thereby strengthening the coherence and relevance of the criminal justice system in the digital age.

### **4. Conclusions**

In the absence, *de lege lata*, of an autonomous criminalization, future regulation is no longer a criminal policy option, but a systemic necessity: without specific rules, the legal order remains vulnerable to an instrument capable of undermining both social trust and the foundation of criminal evidence.

The deepfake phenomenon forces criminal law to overcome its traditional reflexes and adapt to a reality in which identity can be algorithmically modeled and damage can be caused without physical contact. The research also highlights the global and cross-border nature of the risks posed by deepfakes. The rapid and difficult-to-control distribution of fake material requires the adaptation of national legislation and its harmonization with international standards to ensure the effectiveness of crime prevention and punishment. In this context, the "lex ferenda" legislative proposals include precise definitions of deepfake material, the criminalization of acts of production, modification, and distribution for illegal purposes, as well as the establishment of a complementary civil and criminal liability regime designed to protect victims and discourage the

perpetuation of abuse. Finally, doctrinal and jurisprudential analysis reveals that deepfakes cannot be considered merely a technological problem, but rather a major legal challenge that requires the adaptation of criminal codes and legal protection mechanisms to the new digital realities. In this sense, criminal law must evolve not only by sanctioning the effects, but also by preventing the risks associated with the use of deepfakes, through innovative legislative instruments, digital education, and international collaboration.

Therefore, we believe that deepfakes represent a real challenge for contemporary criminal law, requiring a reassessment of traditional concepts of guilt, active subject, material element, and damage, in a context where technology and digital crime intersect in a way that is unprecedented in the history of criminal law. This thesis highlights the need for an integrated approach that combines legal rigor with a deep understanding of technological risks in order to effectively protect fundamental rights and ensure the coherence of the criminal justice system in the face of new digital challenges.

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## Internet resources

<https://zandomeni.eu/blog/regimul-juridic-deepfake-analiza-comparativa>

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<https://journals.sagepub.com/doi/10.1177/14614448241253138>

# THE DELPHI METHOD IN INTERDISCIPLINARY MANAGEMENT: STRENGTHS, CONSTRAINTS, AND EVOLVING APPLICATIONS

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**Abstract** *Interdisciplinary management requires methodological approaches that can integrate different types of expertise in order to address complex organisational, technological and societal challenges. The Delphi method, an iterative, expert-driven consensus technique, has long been employed for forecasting and strategic decision-making. However, its specific role in interdisciplinary management has not been widely examined. This article summarises recent empirical research to evaluate the advantages and limitations of the Delphi method in interdisciplinary contexts, developing a conceptual framework that explains its mechanisms, constraints and evolving applications. Drawing on studies from the fields of sustainability, public-sector procurement, education, interdisciplinary collaboration, governance and Industry 4.0, we demonstrate that, while the Delphi method supports structured communication, consensus-building and future-oriented decision-making, it is hindered by its time-consuming nature, potential biases, limited interaction and dependence on expert engagement. We formulate theoretical propositions about the conditions under which the Delphi method can contribute effectively to interdisciplinary management, and we highlight the emergence of hybrid and digitally augmented Delphi models that combine anonymity with moderated dialogue.*

*This article contributes to theory by reframing the Delphi method as a tool for interdisciplinary management rather than merely a forecasting instrument. It also contributes to methodology by integrating insights on hybrid processes and competencies. Finally, it contributes to practice by offering guidance on designing Delphi studies for complex, cross-disciplinary decision-making.*

## 1. Introduction

Organisations are increasingly operating in environments that are characterised by complexity, uncertainty and interdisciplinarity. Challenges such as sustainable development, digital transformation, global health and integrated research programmes span multiple domains and require the integration of diverse viewpoints. Traditional, disciplinary-based decision-making processes often struggle to accommodate such diversity.

The Delphi method is a widely used approach for eliciting and synthesising expert judgements in situations of uncertainty (Linstone & Turoff, 2002). Based on anonymous, iterative surveys and controlled feedback, it has been applied in areas such as public-sector procurement (Khan et al., 2022), strategic sustainable development in sport (Glibo et al., 2022), international collaboration in education (Bond et al., 2021), interdisciplinary capacity building in health (Teunissen et al., 2022), integrated research programmes (Wever et al., 2023) and Industry 4.0 project teams (Podgorska, 2022).

Despite its widespread adoption, the literature rarely conceptualises the Delphi method as a management tool for interdisciplinarity. Instead, it is often treated as a neutral technique for forecasting or prioritisation. This article addresses this gap by asking:

- ***How and under what conditions does the Delphi method facilitate interdisciplinary management?***

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In order to answer this question, we conducted an integrative literature review and developed a mechanism-based framework that links the core features of Delphi to the needs and constraints of interdisciplinary management.

## 2. Aim and objectives

This research aims to critically evaluate the applicability, advantages and limitations of the Delphi method in interdisciplinary management, and to develop theoretical propositions about its role in complex decision-making.

The objectives are to:

1. Clarify the conceptual foundations of the Delphi method in interdisciplinary contexts;
2. Identify its main advantages, particularly with regard to consensus-building, structured communication and strategic planning;
3. Examine its key limitations, including time demands, expert availability, bias and limited interaction.
4. Integrate recent evidence from multiple sectors in which the Delphi method is used or is relevant.
5. Propose a mechanism-based framework and propositions that explain how and when the Delphi method is effective.
6. Highlight the implications for hybrid, digitally enabled Delphi designs and interdisciplinary governance.

## 3. Key Definitions

To avoid ambiguity, several core concepts have been defined.

**The Delphi method:** This is a structured, iterative technique that gathers expert opinions through multiple rounds of anonymous questionnaires and controlled feedback, with the aim of building consensus or clarifying divergences (Linstone & Turoff, 2002).

**Interdisciplinary management:** The management of processes, projects, programmes or organisations requiring the integration of knowledge, methods and perspectives from multiple disciplines to address complex problems (Horn et al., 2022; Wever et al., 2023).

**Expert panel:** A group of individuals selected for their recognised expertise in relation to the problem being studied. Their judgements are central to the results of the Delphi method (Caby, 2023).

**Consensus:** A sufficient level of agreement among experts, typically assessed via statistical indicators such as percentage agreement or interquartile ranges. For instance, Glibo et al. (2022) defined >80% agreement as the threshold for achieving consensus on sustainability priorities.

## 4. Theoretical foundations and propositions

The Delphi method is based on three core mechanisms: anonymity, iteration and controlled feedback. These mechanisms are particularly useful in interdisciplinary settings, where power imbalances, disciplinary hierarchies and communication barriers can distort decision-making processes (Horn et al., 2022; Specht & Crowston, 2022).

From the literature, we derive five theoretical propositions:

**Table 1. Theoretical propositions**

<b>P1</b>	<b>Consensus Mechanism</b>	Delphi improves the effectiveness of interdisciplinary management by facilitating the formation of structured consensus across disciplinary boundaries. (Glibo et al., 2022; Khan et al., 2022).
<b>P2</b>	<b>Communication Mechanism</b>	Anonymity and structured feedback can reduce interpersonal friction and epistemic conflict, thereby supporting more productive interdisciplinary dialogue (Bond et al., 2021; Specht & Crowston, 2022).
<b>P3</b>	<b>Forecasting Mechanism</b>	Delphi supports forward-looking, multi-criteria analysis, improving strategic planning in uncertain contexts (Khan et al., 2022).
<b>P4</b>	<b>Constraints Mechanism</b>	The effectiveness of Delphi diminishes when there is high attrition of experts, time constraints, and selection biases (Bond et al., 2021; Caby, 2023; Teunissen et al., 2022).
<b>P5</b>	<b>Interaction Mechanism</b>	The lack of real-time interaction in traditional Delphi models limits the depth of interdisciplinary integration. Hybrid models can partially mitigate this (Caby, 2023; Bolisani et al., 2023).

Source: Authors' own research results

These propositions form the backbone of our conceptual framework, which is the foundation upon which we base our work.

## 5. Methodology

This study employs a **qualitative integrative literature review**, which is consistent with the conceptual and theoretical work typically undertaken in management research.

- **We focused on peer-reviewed articles from 2021–2023** that either use the Delphi method directly, or deal with interdisciplinary collaboration and governance in contexts where the Delphi method is relevant.

- Sectors include sustainability and sports management (Glibo et al., 2022), public-sector procurement (Khan et al., 2022), educational research collaboration (Bond et al., 2021), health capacity building (Teunissen et al., 2022), integrated research programmes (Wever et al., 2023), interdisciplinary science teams (Specht & Crowston, 2022), Industry 4.0 (Podgorska, 2022), expert panel management (Caby, 2023), hybrid Delphi design (Bolisani et al., 2023), and interdisciplinary competencies (Horn et al., 2022).

- We conducted a **thematic content analysis**, coding for mechanisms, advantages, limitations, and implications for management.

The goal is not statistical generalisation, but rather **conceptual integration and theory refinement**.

## 6. Main Findings

**Table 2. Advantages in Interdisciplinary Management**

<p><b>Consensus-building across disciplines.</b></p>	<p>The Delphi method has been shown to produce robust consensus on strategic priorities in sustainability-oriented organisations (Glibo et al., 2022) and public-sector procurement frameworks (Khan et al., 2022). In both cases, a manageable set of priorities or criteria was agreed upon by diverse experts.</p>
<p><b>Structured and inclusive communication.</b></p>	<p>Anonymity and controlled feedback enable participants to rethink their views without fear of public exposure, which is especially crucial in situations involving disciplinary hierarchies or power imbalances (Bond et al., 2021). This is consistent with evidence suggesting that diversity can enhance outcomes, but may also lead to interpersonal conflict if not managed effectively (Specht &amp; Crowston, 2022).</p>
<p><b>Strategic forecasting and policy support.</b></p>	<p>Scholars have developed detailed frameworks for complex policy domains by combining Delphi with multi-criteria methods such as AHP (Khan et al., 2022). This demonstrates the value of Delphi for forward-looking strategic planning in interdisciplinary and highly uncertain settings.</p>

Source: Authors' own research results

**Table 3. Limitations and Constraints**

<p><b>Time intensity and resource demands</b></p>	<p>Multi-round Delphi processes can be slow and administratively burdensome. This is problematic in fast-changing environments (Khan et al., 2022).</p>
<p><b>Dependence on expert engagement</b></p>	<p>Dropout and uneven participation can reduce the reliability of research (Bond et al., 2021; Teunissen et al., 2022). Caby (2023) observes that some experts practise self-censorship or avoid controversy, despite the anonymity.</p>
<p><b>Selection bias and representativeness.</b></p>	<p>The composition of panels often reflects existing power structures or regional imbalances. Specht and Crowston (2022) demonstrate that the composition of teams has a significant impact on outcomes, suggesting that Delphi results may reflect these biases.</p>
<p><b>Limited interaction and depth of integration.</b></p>	<p>While anonymity reduces dominance, it also limits the potential for meaningful discussion. Caby (2023) emphasises the importance of interactional expertise — the ability to translate between different disciplinary languages — which is largely absent</p>

	from traditional Delphi designs that rely solely on questionnaires.
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Source: Authors' own research results

### Emerging Hybrid and Digital Models

Bolisani et al. (2023) describe **hybrid Delphi processes** combining asynchronous surveys with synchronous, moderated online sessions. These designs aim to maintain anonymity and structure while facilitating interactive discussion, enhancing engagement and minimising dropout rates. Such models are particularly promising for managing distributed expert communities.

## 7. Discussion

The findings suggest that the Delphi method acts as a **mediating structure**, converting disciplinary fragmentation into integrated managerial insight. This is particularly useful when managers require:

- Structured, transparent input from diverse experts;
- Reduced risk of domination or groupthink;
- Prioritised, actionable outputs.

At the same time, Delphi is **not a neutral or self-sufficient tool**. Its success depends on:

- **Panel design** (diversity, expertise, representativeness);
- **Process design** (number of rounds, feedback quality, time frame);
- **Interpersonal and interactional competencies** of both experts and facilitators (Horn et al., 2022; Caby, 2023);
- **Integration with governance structures**, such as integrated programme management (Wever et al., 2023).

Hybrid, digitally enabled Delphi models appear to offer a promising development, striking a balance between anonymity and interaction. They facilitate the development of interactional expertise and are more aligned with contemporary, distributed forms of collaboration.

## 8. Contributions and Implications

### Theoretical contributions

- A **cross-sector, mechanism-based framework** explaining how The Delphi method operates in interdisciplinary management (consensus, communication, forecasting, constraints, interaction).
- Propositions specifying **boundary conditions** under which The Delphi method is most effective or constrained.
- Reframing The Delphi method as a **management tool** embedded in governance and competency structures, not just a forecasting method.

### Methodological contributions

- Integration of recent work on **hybrid and digital Delphi processes** (Bolisani et al., 2023).
- Connection of Delphi design to **interdisciplinary competencies** such as epistemic stability and adaptability (Horn et al., 2022).
- Emphasis on **expert panel management** as a moderating factor.

### **Practical implications**

- Organisations facing complex, cross-disciplinary decisions can employ Delphi to structure expert input and build consensus.
- Managers should invest in **careful panel selection**, ensure diversity, and monitor dropout.
- Hybrid Delphi formats can enhance interaction without entirely sacrificing anonymity.
- Programme-level governance can incorporate Delphi to align projects with shared strategic aims (Wever et al., 2023).

## **9. Conclusion**

The Delphi method has many advantages for interdisciplinary management, especially when it comes to building consensus, facilitating structured communication and planning strategies in uncertain situations. However, it is limited by time constraints, issues with expert engagement, biases in panel composition and restricted interaction.

This article provides a concise, integrative overview of the role of the Delphi method in interdisciplinary management, outlining its mechanisms, limitations, and evolving hybrid forms. Future research should empirically test the propositions put forward here, compare traditional and hybrid designs, and examine how the Delphi method can be incorporated into wider systems of governance, training, and digital collaboration

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# THE SHIFT FROM MERE COMPLIANCE TO OPTIMIZATION USING ACCOUNTING DATA TO REFORM INTERNAL CONTROL IN ROMÂNIA, ACCORDING TO EUROPEAN MODELS

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**Abstract** *Accounting information is essential for achieving the objectives and fulfilling the core functions of internal control within public institutions, as it significantly influences the transparency and efficiency of public fund management. It supports decision-making and contributes to the prevention and detection of financial irregularities, including fraud.*

*By providing relevant financial data, financial control offers substantial support for planning processes and for adopting strategic and operational decisions. It contributes to the development of budgets and financial plans by analyzing past financial performance, estimating future resource needs, and determining the adjustments necessary to ensure the institution's success, financial soundness, and long-term stability. Through the analysis of stakeholder perspectives, investor expectations, regulatory requirements, employee needs, accounting practices, future directions, and the role of technological advancements and collaborative initiatives, this research concludes that accounting information plays a decisive role in promoting sustainable and responsible business practices. The findings indicate that integrating diverse viewpoints, meeting investor expectations, maintaining a robust regulatory framework, addressing employee needs, ensuring effective community involvement, applying sound accounting practices, and adopting emerging technologies are key drivers of sustainability.*

*The research will employ an applied-descriptive approach, combining theoretical and practical analyses to achieve a deeper understanding of the phenomenon under study.*

**Keywords:** *Accounting information, corporate social responsibility, financial performance, financial information*

**JEL classification:** *M4, M1, G39*

## INTRODUCTION

Recent public administration reforms have been marked by a significant conceptual transition, from the compliance model focused on compliance with legal and procedural norms to the performance model, oriented towards results, efficiency and public value. Thus, internal control, as a fundamental instrument of institutional governance, becomes the strategic element for strengthening administrative capacity and promoting managerial accountability.

The domestic transformation process is deeply influenced by the institutional and conceptual models developed at the European Union level, in particular the Public Internal Financial Control (PIFC) framework. The model promoted at the European Union level integrates the principles of transparency, accountability and good governance based on results. Following this reconfiguration, accounting information goes beyond its traditional role as a compliant

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reporting tool, becoming the essential resource for analyzing managerial and financial performance.

According to the specialized literature, the accounting system, by providing reliable, comparable and relevant data, becomes the essential mechanism for substantiating decisions, monitoring the efficiency of the use of public resources and evaluating the degree of achievement of institutional objectives [Broadbent & Guthrie, 2008; Lapsley, 2009]. Therefore, the relationship between internal control and accounting information is no longer one of formal subordination, but becomes a relationship of functional interdependence, both subsystems having a fundamental role in strengthening financial management processes and in directing them towards performance.

The modernization of the internal control system in Romania therefore involves reconceptualizing the role of accounting information, from a technical and strategic perspective. This aspect involves moving from the reactive model, focused on detecting procedural deviations and non-compliance, to the proactive model, based on risk analysis, integrating accounting information into decision-making processes and using it to evaluate the results and impact of public policies. From this point of view, European models of internal control provide an important reference framework in adapting the national system to the requirements of modern, transparent and performance-oriented administration [<https://op.europa.eu/en/publication-detail/-/publication/f5d1aca3-f349-11e6-8a35-01aa75ed71a1/language-en> – accessed on 01.10.2025].

## **RESEARCH METHODOLOGY**

Both secondary and primary sources were used to write this article. Secondary sources mainly contain the analysis of the literature, as well as other existing models, as revealed by the review of the specialized literature.

**The main objective** of this article is to analyze the role of accounting information within public financial control and its contribution to promoting corporate social responsibility (CSR) in multinational companies. The research aims to identify how accounting information supports financial control processes in the public sector and how it is used to promote CSR within multinational corporations, with particular emphasis on its impact on transparency, accountability, and financial performance.

**The specific objectives** of the article include: analyzing the importance of accounting information in financial control and public fund management within public institutions; investigating how accounting information supports CSR in multinational companies; assessing the impact of accounting information on transparency and accountability in both public institutions and multinational corporations; and identifying best practices for integrating CSR into the financial activities of multinationals through the effective use of accounting information.

As a primary source, a research was conducted. Experts working in the financial-accounting field from several public institutions were interviewed, who were asked for their opinions on how an internal control system based on the use of accounting information should work and what it should contain. The interviews helped to find answers to the following questions:

- 1) What requirements must an internal control system based on the use of accounting information meet in order to be useful in decision-making in public institutions?
- 2) How should it be designed in order to be able to use compliant accounting information, so as to achieve performance in public institutions?

Therefore, an interview guide was created with questions regarding the structure of the internal control system itself and the design of a modern and efficient model. With the answers to these questions, the different requirements of the internal control system were defined.

To answer the first research question, the following questions were asked:

1.1. Which persons or internal structures of the public institution are responsible for the execution and monitoring of the internal control system through accounting information?

1.2. How should the modern model of the use of accounting information in the internal control system be documented and recorded?

1.3. At what intervals should the internal control system that is based on the use of accounting information be reviewed?

To answer the second research question, experts were asked to answer the following:

2.1. What factors are significant for evaluating relevant and compliant accounting information?

2.2. How to choose the appropriate control design in light of the accounting information obtained?

2.3. What criteria should be followed and what questions should be asked to review accounting information?

The unstructured interviews provided valuable information on what needs to be achieved by implementing an efficient and effective internal control system. It is worth noting that it must optimize important processes, such as investment planning or the payment and procurement process. It is also necessary that it be an effective tool for preventing violations of existing regulations and policies within public institutions, but, at the same time, it must also provide optimized reporting, with transparent and reliable figures. This aspect is advantageous in the context where external audits are taken into account. Moreover, a modern model of internal control system must also be a system that works complementary to the control systems already existing within public institutions.

- Theoretically, the COSO model is known as the best example of implementing an internal control system. In this research, the COSO model is taken as a basis, but its levels will be redefined and based on new components.
- First, the general structure and framework conditions of the internal control system must be clarified. This includes setting relevant objectives. Starting from the theory and a general understanding of internal control systems, mainly three objectives are always set:
  - ✓ Ensuring the efficiency and effectiveness of accounting information.
  - ✓ Reliability and regularity of financial reporting, through the lens of the accounting information collected.
  - ✓ Compliance with European Union Directives and Romanian legislation.

Following the interviews with the experts, it became clear that it is neither necessary nor efficient to invent a completely new model or sets of controls, but to modernize the existing ones. It was also emphasized that the monitoring and effectiveness of the controls should be the responsibility of each department or process manager for the elements under their responsibility. There is a need for overall managerial responsibility for the administration and supervision of the internal control system, complemented by specific operational responsibilities at the process level. The documentation of the internal control system is a fundamental component for the effectiveness of the system. It should be as transparent as possible and formulated in such a way that it can be understood by an independent third party. All the experts interviewed advocated transparency and internal accessibility of information; in addition, they recommended that the internal control system procedures be clearly documented and made available, explicitly integrating the relevant financial and accounting information.

All these results regarding the framework and general structure of the internal control system based on accounting information form the first level of the model: defining relevant objectives; returning to the systems and controls already in place; documentation, communication, review.

The experts stated that, in order to achieve adequate risk management for the internal control system, the most relevant processes must be identified and analyzed. Regarding the identification of processes, the experts referred to the creation of a model divided into three levels, each level with a different degree of process detail, as follows:

In the first phase, the main processes of the public institution must be identified and their scope delimited. In the second phase, the main processes are broken down into detailed functional components. In the subdivision phase, a more detailed breakdown is made, i.e. each process is divided into concrete sub-processes.

After outlining the process fractionation, the process diagram must be developed. This breaks down each process into its specific steps and allows them to be translated into an “information control matrix”. For each identified process, clear objectives are defined — both general objectives and key performance indicators (KPIs).

The matrix will be developed in close collaboration with the experts to meet their standards and guarantee the best possible fit for the institution. The matrix is compiled individually for each identified process, but follows a standardized procedure, the same for each identified process. Components of the matrix are applied to each step: Description of the control; Impact on the objectives defined for each process; Design of the control; Control method; Object of control; Responsibility; Frequency; Effectiveness; Adequate documentation.

## **CONTEXT AND CONCEPTUAL PREMISE**

In the public sector, the modernization of the internal control system involves the transition from a model focused exclusively on procedural compliance to an integrated model of performance-oriented governance, based on risk management, managerial responsibility and the use of information for decision-making.

The conceptual framework in the European Union that synthesizes this type of orientation is represented by the "Public Internal Financial Control" (PIFC) initiatives and the guidelines developed by SIGMA/OECD, which indicate the integration of internal control into managerial acts and the use of non-financial and financial information to ensure efficiency, effectiveness and transparency.

### **1. The role of accounting information in the modernized internal control framework**

The modernization of internal control is supported by accounting information through a set of interdependent mechanisms, some of which are presented below.

**A first interdependent functional mechanism** is the provision of a credible database for performance evaluation because accounting, especially in the accrual version, allows the measurement of the real costs of activities, the comparison of results with budgets and estimates and the calculation of efficiency and effectiveness indicators. This factual basis is essential for the transformation of internal control from an ex-post verification mechanism into a proactive management tool [https://www.ipsasb.org/news-events/2013-03/ec-report-calls-ipsas-indisputable-reference-accrual-based-public-sector-standards – accessed on 01.10.2025].

**Another mechanism** is the integration of accounting with risk analysis and management control because accounting data allows the identification of areas with disproportionate consumption of resources, significant variability compared to the plan and feeds the risk

assessments that underlie the prioritization of controls (proportionality control). The use of financial - accounting information is recommended by PIFC models as input into risk assessment processes and in the planning of preventive and detective controls [[https://commission.europa.eu/strategy-and-policy/eu-budget/protection-eu-budget/public-internal-control\\_en](https://commission.europa.eu/strategy-and-policy/eu-budget/protection-eu-budget/public-internal-control_en) – accessed on 01.10.2025].

The adoption of harmonized public accounting standards (e.g. IPSAS / EPSAS) will increase the comparability and transparency of financial reports at institutional and systemic level, facilitating performance assessments at central level and external control. Consolidated reporting, based on common practices, supports managerial accountability and strategic control is a third functional mechanism identified [<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX%3A52013SC0057> – accessed on 01.10.2025].

Well-structured and accessible accounting information reduces the cost of investigations, increases the efficiency of internal audit and allows the orientation of audit work towards performance analysis and risk controls, according to European recommendations on the separation and clarification of roles between financial inspection and internal audit [<https://www.sigmaweb.org/content/dam/sigma/en/documents/2023/Guidelines-PIFC-compliant-financial-inspection.pdf> – accessed on 01.10.2025].

Well-structured and accessible accounting information reduces the cost of investigations, increases the efficiency of internal audit and allows the orientation of audit work towards performance analysis and risk controls, according to European recommendations on the separation and clarification of roles between financial inspection and internal audit.

The evolution of internal control is closely correlated with the process of accounting reform in the public sector in the member states of the European Union. The transition from cash accounting to accrual accounting allowed the faithful representation of the patrimonial and financial situation of public institutions, providing precise data in the assessment of financial performance and sustainability (Pina, Torres & Yetano, 2009). The change led to the integration of accounting information in the mechanisms of planning, monitoring and managerial control, facilitating the results-based approach.

In the last two decades, the European Union has promoted the clear trend of harmonization of public accounting standards, embodied in the European Public Sector Accounting Standards (EPSAS). The adoption of rules inspired by the International Public Sector Accounting Standards (IPSAS) by the Member States has resulted in increased comparability and quality of accounting information, which strengthens the basis for efficient and uniform internal control [[https://www.accountancyeurope.eu/wp-content/uploads/FEE\\_Issues\\_Paper\\_on\\_EPSAS.pdf](https://www.accountancyeurope.eu/wp-content/uploads/FEE_Issues_Paper_on_EPSAS.pdf) – accessed on 01.10.2025].

To highlight how cultural values can influence people's behavior in society and at work, a theory developed by Geert Hofstede, a renowned Dutch sociologist, was analyzed on the member countries of the European Union and their impact on internal control [Hofstede, 2011 available at <http://dx.doi.org/10.9707/2307-0919.1014> - accessed on 05.10.2025]. Thus, the sociologist established a set of 6 dimensions, namely power distance; masculinity vs. femininity; individualism vs. group membership; uncertainty avoidance, restriction vs. permissiveness; short-term vs. long-term orientation. The cultural dimensions analyzed by Hofstede within the member countries of the European Union reveal the influence of the way in which internal control is designed, applied and perceived within public institutions in various member countries, and cultural diversity reveals the direct influence of the efficiency of internal control systems.

It is worth noting that states with low power distance such as Sweden, the Netherlands and Denmark tend to promote decentralized internal control, based on autonomy, responsibility and decision-making transparency. Countries with high uncertainty avoidance such as France, Poland, Romania and Spain prefer formal controls, strict rules and detailed procedures, to the detriment of flexibility. Countries with a high long-term orientation, such as Germany and the Netherlands, have a strategic approach to internal control, investing in sustainable systems and risk management processes. Therefore, countries such as the Netherlands, France, Portugal or Sweden have developed financial reporting models integrated with internal control systems, in which accounting information is used not only in external financial reporting, but also for internal analysis of the efficiency and impact of public policies. A relevant example is France where the application of the principles of the Loi Organique relative aux Lois de Finances (LOLF) has determined the managerial approach to internal control based on performance indicators generated from accounting and budgetary systems [Lapsley, 2009].

Internal audit uses accounting information to assess the accuracy and reliability of financial systems, the efficiency of implemented controls and the degree of compliance with the principles of sound financial management. At the same time, accounting reports represent the method of substantiating managerial responsibility, because public managers are evaluated in relation to the use of budgetary resources and the results obtained [Van Helden & Reichard, 2019].

The digitalization of financial systems and their integration into unified IT platforms (ERP or Business Intelligence) have led to greater traceability of accounting information in member states, facilitating real-time verification, analysis and reporting. The evolution directly contributes to the development of the quality of internal control, to the reduction of fraud risks and to the strengthening of transparency in the management of public funds.

The specific element of the European area is the Public Internal Financial Control (PIFC) model, which integrates the three pillars: financial management and control, internal audit and the central harmonization unit. The model is recommended by the European Commission to ensure managerial accountability and the independence of internal audit, as well as to promote a culture of integrity and transparency in the public sector [[https://commission.europa.eu/publications/annual-activity-reports-2017\\_en](https://commission.europa.eu/publications/annual-activity-reports-2017_en) - accessed on 02.10.2025].

However, the practical application of this model reveals significant differences between the Member States. In countries with a consolidated administrative tradition, such as Germany, the Netherlands or France, internal control is predominantly oriented towards risk assessment and performance, being used as a managerial tool to support decision-making. Internal audit has a high degree of independence, and its reports are effectively used in the governance process.

The implementation of internal control in countries with transitional and young administrative systems has a conformist approach, focused on strict compliance with legislation and standardized procedures. The orientation leads to excessive formalism, where the emphasis is placed on reporting to central authorities, and the managerial potential of internal control is insufficiently exploited.

Therefore, the legislative framework, available institutional resources, independence of audit institutions, level of professionalization of staff, as well as organizational culture are the determining factors of the differences. Therefore, although there is some convergence at the formal level, the level of institutional maturity differs significantly between member countries. The comparative analysis of internal control systems in public institutions in the member states of the European Union highlights the conceptual convergence determined by the COSO, INTOSAI

framework and the PIFC model promoted by the European Commission. In this context, practical implementation reflects the diversity of approaches, ranging from compliance-oriented to performance- and risk-oriented.

Thus we can conclude that while in Western European countries internal control functions as a tool of governance and strategic management, in countries with administrations in the process of consolidation it often remains a formal exercise, focused on compliance with legislation and reporting. To achieve a comparable level of maturity, it is mainly necessary to promote the independence of internal audit, strengthen institutional capacity and consolidate the organizational culture of integrity and managerial responsibility in all European Union member countries.

The comparative analysis of the experience in the European Union member countries highlights the common directions of modernization presented below. To ensure the comparability and credibility of financial information, alignment with the harmonized EPSAS/IPSAS standards is necessary. The basis for strategic decisions and planning must be the integration of accounting information into risk and performance management systems.

Strengthening central accounting harmonization units to ensure the coherence and quality of reporting at the government level. Digitizing control and accounting processes to increase the accessibility and transparency of information. Continuous professional training of personnel in accounting and internal control structures to capitalize on the potential of accounting information as a managerial tool.

Consequently, accounting information becomes the pivotal element of internal control reform within the European Union, contributing to the transition from a logic of administrative compliance to one of performance and managerial responsibility. Adapting such approaches to the Romanian institutional context requires not only the modernization of the accounting infrastructure, but also a cultural change regarding the way of perceiving and using financial and accounting information in the public decision-making process.

- Some of the solutions applicable to Romania that could be adopted from the practice and standards applied in the member countries that we have identified are:
  - Gradual adaptation of accrual-based accounting and consolidated reports in the context in which several member states have followed the phased transitions, combining transparency requirements at the aggregate level with legislative and technical adaptations to support EPSAS/IPSAS. This aspect optimizes the relevance of financial - accounting information to support decision-making.
  - Central harmonization units to coordinate accounting policy, registers and standards, and to ensure the interoperability of financial - accounting IT systems. Countries with performing systems have invested in Central Harmonization Units and in common reporting procedures,
  - Integration of IT systems: ERP/IFRS systems and the use of IT tools for aggregation and reconciliation would facilitate real-time monitoring and results-oriented control.
  - Professional training and implementation of clear regulatory frameworks in the context where the transition affects both the technical side, such as standardization and IT, and the human side, such as managerial capacity and internal audit.

The assessments and study on the evolution of internal control in Romania reveal several significant constraints for the efficient use of accounting information in modernization [[https://enlargement.ec.europa.eu/document/download/e81586db-20de-4ce2-ac67-efb755c03929\\_en?filename=ro-0006-06\\_internal\\_audit\\_and\\_financial\\_control.pdf](https://enlargement.ec.europa.eu/document/download/e81586db-20de-4ce2-ac67-efb755c03929_en?filename=ro-0006-06_internal_audit_and_financial_control.pdf) – accessed on 02.10.2025]:

- The fragmentation of information systems and the absence of interoperability between public institutions and administrative levels diminish the quality of data aggregation and comparability.

- Human resources and competences in accrual accounting, financial analysis and internal audit at local and central levels have an uneven institutional capacity.

- The legislative framework and accounting practices with an emphasis on compliance with legality control procedures combined with preventive controls limit the focus on performance and cost-effectiveness analysis.

Although our country has made significant progress in developing the legislative and institutional framework of internal control, the modernization process is partial, marked by gaps between the principles assumed at the strategic level and the effective implementation in public entities.

Although regulated and structured, the national system of internal managerial control is partially aligned with the European model and is often perceived and applied in a formal manner, focused on compliance and meeting reporting requirements.

From the research conducted, in most public institutions, documenting procedures and completing checklists predominate to the detriment of risk analysis, cost and result evaluation, or the use of accounting information for decision-making. This approach limits the system's potential to generate managerial added value and support performance-oriented governance.

Although our country uses a dual budgetary and patrimonial accounting system, accounting information is very rarely used strategically. Correlating expenses with performance indicators, cost analysis and evaluating the efficiency of public resource use are very poorly developed areas. In the absence of modern accounting tools and a data-based organizational culture, internal control continues to function as a compliance mechanism rather than a decision support system.

Another aspect is the fragmentation of financial and accounting management information systems, which reduces the capacity of public institutions to generate consolidated reports and integrate financial and operational data. The absence of unified digital platforms and harmonized reporting standards limits the coherence of information available for internal control and internal audit. Moreover, the terminological and methodological mismatch between budgetary and patrimonial accounting systems affects the consistency of financial analysis.

To ensure convergence with European practices, Romania needs to reconceptualize the role of accounting information within internal control, approached from a systemic and performance-oriented perspective. These aspects involve modernizing the methodological framework of public accounting and internal control. Another significant aspect is the strengthening of information interoperability between accounting and financial management systems. Strengthening the role of central harmonization units in coordinating accounting standards and control methodologies represents other aspects of convergence. Promoting and adopting an organizational culture based on data and the use of accounting information in the decision-making process are also aspects to be adopted. Last but not least, the continuous professional training of personnel involved in the financial-accounting and internal control fields.

## **2. Accounting information in the european context**

From the experience of the Member States of the European Union, the modernization of the internal control system is linked to the quality, relevance and degree of integration of accounting information in public governance processes. Accounting information in the European context is no longer perceived exclusively as a compliance or ex-post reporting instrument, but as

the strategic element of the management control architecture, with a fundamental role in planning, monitoring and evaluating institutional performance.

The adoption of accrual-based accounting, the harmonization of standards through the EPSAS and IPSAS frameworks, the development of integrated IT infrastructures and the strengthening of the internal audit function have generated the structural transformation of the way in which internal control is designed and applied. These transformations have allowed a shift from a predominantly formal and procedural control to one based on risk, results and public added value. Based on the research conducted and good practices in the European Union and the identified constraints, we propose the following priority directions:

- ✓ Implementation of a Phased Accounting Harmonization Plan — adopting a “roadmap” for the transition to accrual-based accounting elements and for the gradual alignment with EPSAS/IPSAS; phasing reduces institutional shock.
- ✓ Strengthening data governance, namely the centralization of accounting standards, accounting codes and reporting rules; establishing data quality control mechanisms and mandatory reconciliations.
- ✓ Integrate accounting into risk management processes by using accounting data to build risk profiles, prioritize controls, and direct internal audit to high-risk areas of activity.
- ✓ Invest in information systems and develop centralized modules that allow for automatic reconciliation, generation of performance indicators for managers, and easy access for internal auditors.
- ✓ Develop professional capacity through national training programs for public accountants, internal auditors, and managers on financial analysis, accrual accounting, and the use of information for performance evaluation.
- ✓ Clarify roles and separate functions by implementing the PIFC principles on managerial accountability, financial oversight, and the internal audit function, so that accounting information is the common thread that links responsibilities.

Accounting information, treated as a strategic resource, not just as a reporting obligation, represents an essential vector for the transformation of the internal control system in Romania, from procedural compliance to performance-oriented governance.

The implementation of harmonized standards (EPSAS/IPSAS), increasing data quality and interoperability, integrating accounting into risk assessments and strengthening institutional capacity are necessary conditions for PIFC to produce sustainable effects.

The models and guides developed at EU level (PIFC, SIGMA, recommendations on public accounting standards) provide practical and normative benchmarks that Romania can adapt, in stages, depending on resources and priorities.

Adapting such approaches to Romania would require a dual direction of action: on the one hand, developing an institutional culture that would capitalize on accounting information as a support for decision-making, responsibility and performance, and on the other hand, strengthening the normative and methodological framework of public accounting, by aligning it with the European principles of good financial governance. Only through the organic integration between internal control and accounting will the Romanian public administration be able to achieve the transition from compliance to performance, in accordance with the requirements of the European model of modern governance.

## CONCLUSIONS

The metamorphosis of the internal control system from a compliance mechanism into a performance tool through the use of reliable information requires a strategic, integrated and gradual approach. Starting from international standards in the field and European practices that are intended to ensure real convergence between accounting, financial governance and internal control, the directions of action for Romania are outlined.

Reviewing the Romanian legislative framework on internal control to more accurately reflect the link between performance objectives, accounting indicators and monitoring processes represents the first direction in this regard. Internal control must be approached and conceived as an integral part of the performance management system, not as an administrative activity in the classical sense. Therefore, it is necessary to adapt the existing legislation to integrate clear and explicit references to the role of accounting information in risk analysis, evaluation and measurement of results.

To harness the potential of accounting information, public institutions must develop mechanisms through which accounting data are systematically used in the planning, budget execution and performance monitoring process. Implementing results-based management requires correlating financial indicators with operational and strategic ones, so that internal control can assess not only compliance, but also the efficiency and impact of resource use. Also, adopting cost accounting and performance budgeting tools would allow for a deeper analysis of the relationship between expenditures, results and public value created.

The modernization of the internal control system directly depends on the capacity of institutions to collect, process and analyze accounting information in an integrated manner.

Romania should accelerate the development of a digital ERP (Enterprise Resource Planning) ecosystem adapted to the public sector, which would ensure interoperability between accounting, budgeting and internal control systems. The implementation of national financial reporting platforms, based on common data standards (e.g. XBRL - eXtensible Business Reporting Language), would contribute to increasing transparency, reducing reporting errors and improving the decision-making process.

Professional skills are a determining element in the efficiency of internal control. It is necessary to develop a national program of continuous professional training, oriented towards the development of analytical, digital and managerial skills.

In this regard, Romania could adopt certification models similar to those promoted by IFAC and INTOSAI, which would recognize integrated skills in the field of public accounting, internal audit and performance management. In addition, educational programs must be adapted to the current requirements of public governance [IFAC, 2021].

Another aspect is the consolidation of the Central Harmonization Unit for Public Internal Audit under the Ministry of Finance, which must strengthen its strategic, methodological and control coordination.

The Central Harmonization Unit for Public Internal Audit needs to develop a set of common standards regarding the integration of accounting information into internal control, conducting periodic assessments regarding the maturity of internal control systems, promoting good practices and comparative studies between public institutions, ensuring the methodological link between accounting, internal audit and performance governance.

Convergence from compliance to performance requires a cultural change from its depth. It is necessary to adopt a managerial vision in which accounting information is not just a reporting tool, but a strategic resource in substantiating decisions. This aspect implies assuming the

principles of responsibility, transparency and results orientation, simultaneously with the development of an organizational climate favorable to innovation and learning.

By capitalizing on accounting information, the modernization of internal control is a complex but fundamental process in strengthening public governance. The experience of the European Union Member States confirms the fact that institutional performance is based on the coherent and uniform integration of accounting, control and performance management systems. The combination of normative and administrative reforms, digitalization, professionalization and a culture of accountability will transform internal control in Romania into a real performance instrument, in line with the European principles of good financial governance.

The article „From compliance to performance: using accounting information to modernize internal control in Romania by using EU models” contributes significantly from a theoretical perspective to strengthening the understanding of the relationship between accounting information, internal control and institutional performance, highlighting how the principles and models of good European practices can be adapted to the Romanian context. It emphasizes the importance of moving from compliance-oriented control to performance-oriented control, which supports the adoption of managerial decisions and reduces the use of public resources.

The analysis provides, from a practical point of view, methodological frameworks and concrete recommendations to support the modernization of internal control systems in public institutions, including the efficient integration of accounting information in decision-making processes and in the assessment of financial performance. The main contribution consists in highlighting concrete directions of action for the implementation of European Union standards, as well as in proposing a conceptual framework that can guide practitioners and decision-makers in the reform process.

Last but not least, the research highlights the differences in maturity between the Romanian model based on the Internal Management Control Standards and the European approaches derived from the COSO and INTOSAI frameworks. While the Internal Management Control Standards have a predominantly normative orientation, focused on compliance and the implementation of standardized procedures, the European frameworks promote an integrated approach oriented towards risk management, performance and continuous improvement. The difference reflects the stage of evolution of the managerial culture and public governance in Romania, where the emphasis is placed on formal compliance with legislative requirements, rather than on the use of internal control as a strategic support tool for the adoption of managerial decisions. Consequently, the maturation of the internal control system involves a gradual transition from the logic of compliance to that of performance, in alignment with the good practices promoted by COSO and INTOSAI.

In the future, this research suggests expanding the study regarding the effects of digitalization and new technologies on internal control, as well as assessing the impact of adapting European models on the performance of public institutions. The article also brings a consolidation of the theoretical basis for a modern internal control system and provides practical tools for more efficient and transparent management of public resources, thus contributing to the development of institutional performance in Romania.

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# THE IMPACT OF INFLUENCERS ON CONTEMPORARY SOCIETY

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***Abstract:** Social media has become, in the last two decades, one of the main channels of mass communication, through which information and entertainment are distributed and watched.*

*TikTok, YouTube, Facebook, Instagram, Threads, etc. have contributed to the radical transformation of the way in which people interact with informational content.*

*In this context, some people have identified a new possibility to address the public, and thus a new category of opinion leaders has emerged – influencers. Although there are numerous controversies about them, the strongest being the fact that they manage to shape the perceptions, behaviors and purchasing decisions of others through the content of their online accounts, influencers today have a significant role in the virtual world, which their followers transfer to the real one.*

**Keywords:** influencer, information, digital, entertainment, public

**JEL Classification:** L31, L82

## 1. Introduction

The term „influencer” comes from the English language, from „to influence” - to influence. This person influences or changes the way other people behave, the decisions they make, and in the modern sense refers to a person who has the power to determine the reactions, preferences or attitudes of a public following, especially through their constant and active presence in the online environment.

The impact of the influencer was born and is based on credibility, authenticity and close relationship with the community, on the physical attractiveness, habits and language used by them. In many cases, however, it is not based on solid professional training.

The term also has commercial implications, and because influencers often collaborate with brands to promote products or services, what is called **influencer marketing** has emerged.

A person who is fascinated by an influencer can be characterized in several ways, depending on the intensity of the fascination and the motivations behind it.

For example, from a psychological perspective, we identify: admiration – sees in the influencer a model of success, an ideal of life, style or personality; emulation – the desire to resemble that influencer, to adopt their values, behaviors or style; weakness – is prone to taking over opinions, tastes or habits without critically filtering them; idealizing – tends to see only the positive aspects and ignore the flaws or contradictions of the person being followed.

From a social point of view, we identify: connectivity – follows trends, discussions and values promoted online; search for belonging – finds in the influencer's community a sense of group, of shared identity; social dependency – can come to measure their own value according to the validation received from that online sphere.

Critically analyzing a follower, we can say that:

- if the fascination is moderate, the person can be curious, open, inspired;

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- if it becomes excessive, a dependence on the influencer's image, a loss of critical thinking or an unrealistic idealization may appear.

If for the influencer the word that identifies him is only one, for the influenced one we have several words and expressions, among which we list: devoted admirer, loyal follower, enthusiastic fan, and at the extreme, obsessed with the influencer's image or idolater.

## 2. The role of influencers

In summary, we identify the following roles:

a) Social: through their ability to shape public opinion, promote social causes, volunteerism, healthy lifestyles and modern values, they communicate and recommend, increase the notoriety of products and services, create communities, generate dialogue, feedback, loyalty.

b) Economic: influencers are strategic tools and key partners of brands in digital marketing, promoting products and services in an authentic, personal way.

In marketing, they can contribute to an increase in direct sales (in some cases), through promotions or discount codes posted by influencers that can generate purchasing decisions. Through effective targeting, by choosing the right influencers for the desired audience, brands can reach exactly the segment that matters.

The following clarifications should be made here:

- there are situations in which influencers are not necessarily users of the products and services promoted,

- out of a desire to obtain personal financial advantages, they promoted poor quality products with side effects,

- due to poor preparation, there were situations in which they undertook to promote something that did not exist, becoming the target of ironies.

Two well-known examples are:

- **Plush Bio** - a cosmetics brand from Romania, heavily promoted by big influencers such as Adelina Pestrițu, Antonia, Andreea Mantea, Bianca Drăgușanu, etc. The products were „personalized” creams, promoted with big promises regarding skin regeneration. The result: dozens of women reported chemical burns, permanent stains, serious allergic reactions (<https://evz.ro>);

- **Brânza Regelui** / non-existent product – for which a vlogger created a fictitious campaign: an invented product, from an invented institution, the „Royal Court of Romania”. Then he sent the product/boxes to influencers such as Ana Morodan, Oana Roman, who promoted the product without checking if it really exists (<https://www.dcnews.ro>).

c) Educational and inspirational: many influencers provide informative, educational or inspirational content for their audience, build trust, can influence through behavioral models and lifestyles.

## 3. Categories of influencers and their earnings

Influencers can be classified into different categories. Here are some of the most popular, based on audience, domain, platform, and content type.

a) By audience size or number of followers, there are:

- nano-influencers: under 10,000 followers; with a very close relationship with their audience, authentic content, high conversions;

- micro-influencers: 10,000–100,000; with high credibility in niches, very useful for small and medium-sized brands;

- mid-tier influencer: 100,000 – 500,000; with a consistent audience, being a mix between authenticity and influence;

- macro-influencers: 500,000–1,000,000; with high visibility, suitable for national campaigns;

- mega-influencers: over 1 million; celebrities or public figures, massive impact but lower authenticity.

b) By field, there are: fashion, beauty, food, travel, tech, gaming, lifestyle, home and design influencers, education, personal development, culture, entertainment, art and creativity, sustainability and eco, parenting and family, business and finance, politics.

c) Other criteria can classify them into:

- generalists or niche;

- professionals or amateurs:

- vlog makers, photography, text, live streaming, reels, podcasts, etc.

*Table no. 1*

**Characteristics of influencers**

No.	Type of influencer	Domain	Target audience	Content type	Examples of collaborating brands
1	Beauty & Fashion	Makeup, care, fashion	Women aged 16–35, passionate about trends	Tutorials, unboxing, OOTD, product reviews	Sephora, Zara, L’Oréal, H&M
2	Health & Fitness	Sports, nutrition, wellness	Active people, interested in a healthy lifestyle	Fitness routines, recipes, challenges, transformations	Decathlon, MyProtein, Nike, Under Armour
3	Food	Gastronomy, restaurants, recipes	Lovers of cooking and culinary experiences	Video recipes, reviews, tastings	McDonald’s, Tefal, Lidl, Hellmann’s
4	Travel	Travel, tourism, adventures	Young, explorers, with middle-high income	Vlogs, guides, destination photos	Booking.com, AirBnB, Samsonite, Wizz Air
5	Tech	Technology, gadgets, gaming	Men 18–40 years old, tech enthusiasts	Reviews, unboxing, comparisons, live gaming	Samsung, ASUS, Logitech, Microsoft
6	Home & Design	Decor, DIY, arrangements	Adults 25–45 years old, homeowners	Interior tours, DIY projects, practical ideas	IKEA, Dedeman, Vivre, Philips Lighting
7	Business & Finance	Entrepreneurship, investments	Professionals, young entrepreneurs	Advice, analysis, motivation, case studies	Revolut, BCR, Forbes, eMAG Marketplace
8	Entertainment	Comedy, lifestyle, entertainment	General public, social media users	Sketches, trends, vlogs, challenges	Netflix, Coca-Cola, Samsung, TikTok
9	Art & Creativity	Art, photography, design	Artists, young creatives	Tutorials, artistic processes, visual inspiration	Adobe, Canon, Wacom, Pinterest
10	Sustainability & Eco	Environment, green life	Eco-conscious people, NGOs	Eco products, activism, sustainable living	The Body Shop, Patagonia, IKEA (eco line)

11	Parenting & Family	Family, children, education	Parents, especially women 25–45 years old	Parenting experiences, education, advice	Pampers, Nestlé, Chicco, Kinder
12	Education & Personal Development	Education, coaching, career	Students, young professionals	Lessons, motivation, courses, live Q&A	Coursera, Mindvalley, LinkedIn Learning

Source: created by the authors

All of them, as well as those who follow their advice, are constantly subject to ethical challenges and issues. In order to exist, permanent authenticity, transparency and accountability are essential. Once lost, it is difficult to come back, because the educated public, as a rule, does not forget and does not forgive.

Their common problems include market saturation over time, disguised advertising, the pressure of perfection, fraud and false engagement, transparency, fake followers and economic uncertainties that can reduce the budgets of brands or customers.

#### 4. Markets and trends

**The influencers marketing market in Romania exceeded 100 million euros in 2024** (<https://economedia.ro>) and **is estimated at 112 million euros in 2025** (<https://www.revistabiz.ro>). There are over 48,000 active influencers who collaborate with brands. Their earnings vary according to different criteria. On average, we have this public information:

- Micro-influencers: 1,000–1,500 euros/campaign;
- Big influencers: 4,000–100,000 euros/campaign;
- Celebrity figures like Selly (the most followed vlogger in Romania) or Dorian Popa can earn tens of thousands of euros monthly (<https://www.libertatea.ro>). They revealed the „secret”, stating that Selly can reach 10,000–15,000 euros/month from YouTube and collaborations, and Dorian Popa can reach 40,000–80,000 euros/month from multiple activities.

There are also minimum fees, between **200-300 lei** for simple posts (small influencers, small community) to much higher amounts for celebrities.

Income differs from month to month for the same influencer, depending on views, active campaigns, season (e.g. holidays, Black Friday etc.), number and type of collaborations. If an influencer exceeds 500,000 followers or has a large audience on multiple platforms, prices for collaborations go much higher.

Direct monetization from platforms (YouTube AdSense, TikTok Creator etc.) is not the only major source of income; collaborations with brands, TV stations, merchandising, events and other projects provide them with significant income.

This new market has a significant impact on society. Influencers have changed the way information is communicated, promoted and consumed. They contribute to the democratization of public opinion, the promotion of social values and the creation of new cultural models.

Based on the analysis of several reports published in 2025, we note **some major trends that shape the effectiveness of influencers:**

- micro- and nano-influencers are gaining serious ground. Although they have smaller audiences, they are more involved - higher engagement rate, greater trust;
- campaigns with several small influencers give better results than a single one with a mega-influencer, especially for niches (<https://hypefy.ai>). Authenticity and emotional connection matter more than visual perfection;
- raw content, personal stories, increased transparency (<https://theagency.com>);

- long-term collaborations are preferred over isolated campaigns. If there is an ongoing relationship, influencers can build credibility and consistency; the audience perceives better and more loyalty is generated;
- multi-platform strategies and diversification of content formats are applied. Short video (Reels, Shorts, TikTok) is dominant; but podcasts, newsletters, blogs are also followed and have roles in storytelling and SEO;
- cross-channel is applied as coordinated communication between multiple channels, with content adapted to the platforms to maximize the result;
- companies' use of data and AI, as discovery tools based on algorithms, behaviors, feelings, for optimization and more precise choice of influencers;
- measuring ROI (return on investment) is not only done through reach/likes, but through clicks, conversions, customer retention rate etc.;
- immersive experiences / interactive content matter (Augmented Reality, Virtual Reality, live, live shopping, escape room, interactive exhibitions). In areas such as beauty, fashion, furniture/decor, virtual product trials, 3D visualizations, modeling and arrangement according to the follower's imagination etc.

Table no. 2

**The categories of highly effective influencers, based on the mentioned trends**

Type / Domain	Why they are effective in 2025	High potential / Advantages
Micro- & nano-influencers in niches (e.g. wellness, art, local parenting etc.)	lower costs, more dedicated audiences, increased engagement; ideal for campaigns with a medium-low budget	high conversion efficiency; building a „community” brand; increased credibility
Business & Finance / Education / B2B	growth due to the need for expertise; audiences are looking for valuable information, not just entertainment	long-term relationships; less competition than in beauty/fashion; good monetization potential
Tehnology & Gaming	passionate audiences, ready to spend on new products; humanized technical content (reviews, demos) works well	collaborations with gadget brands; influencers who experiment provide credibility
Beauty & Fashion	It remains big, but it needs to adapt to trends: authenticity, UGC content, virtual try-ons, live shopping. The field is competitive, so differentiation matters a lot.	big brands can innovate; local micro-influencers can play an important role; visuals still matter a lot
Sustainability & Eco / „Green” products	young audience emphasizes values; transparency and purpose matter; low risk of backlash if authentic	opportunity for differentiation; increased loyalty; possibilities for collaboration with NGOs or local communities

Source: created by the authors

Table no. 3

**World rankings**

Ranking	Example / Top influencers	Number of followers / Audience	Estimated income (where available)
Instagram – the highest paid in 2025	Cristiano Ronaldo; Leo Messi; Selena Gomez etc.	Ronaldo has ~664.4 million Instagram followers in that ranking; Messi ~506.5 million.	Ronaldo receives an estimated \$4.1-5.6 million per period (possibly monthly?) on Instagram.

TikTok – the highest paid in 2025	BTS (account official), Brooke Monk, Ishow Speed, Ibai etc.	BTS has around 66.6 million viewers; Brooke Monk ~ 34.1M; IShowSpeed ~41.3M etc.	Estimated revenue for BTS: ~432.6-679.2 thousand USD in a selected period; for others it varies similarly.
All platforms / highest paid creators	MrBeast; Selena Gomez VEVO; FOX Sports; others.	For example, MrBeast has ~510.7 million total audience (sum of followers/subscribers across platforms) in that ranking.	MrBeast has an estimated ~\$51.6 million in total combined revenue that month (from Instagram, YouTube etc.)

Source: <https://hafi.pro/top/highest-paid-instagram>

Table no. 4

### Rankings from Romania

Platform / domain	Example influencers / positions	Number of followers / results
TikTok, România	Most followed account: Aurelia Dobre In second place: Florina Toma	~ 7,1 millions ~ 5,9 millions
Instagram, România	Claudia Pavel Selly	~ 2,9 millions ~2,2 millions
Top influenceri România (instagram, toate categoriile)	Cătălin Botezatu Alții mari	~ 1,9 millions > 1 million

Source: <https://www.statista.com/statistics/1179354/romania-most-popular-tiktok-accounts-by-followers/>; <https://hypeauditor.com/top-instagram-all-romania/>

Table no. 5

### Relevant data for Romania (2024-2025)

Indicator	Value / range
Estimated influencer marketing market for Romania in 2024	> 100 millions of euros
Number of active influencers (who have at least one paid campaign per month)	~ 48.000 for 2024
Estimated number of commercial posts	~ 320.000 in 2024

Source: <https://www.paginademedi.ro/stiri-media/influenceri-marketing-venituri-21684944>

## 5. Regulation

In Romania, we are faced with a lack of clear regulations, or more accurately, with the initiation of regulatory measures by institutions with a major role, such as the NAC – National Audiovisual Council and the RAC – Romanian Advertising Council.

The NAC recently approved the new Audiovisual Code (<https://cna.ro>). This represents the most extensive legislative update in the last decade in the audiovisual field, adapting to new technological, social and informational realities, extending the scope to the online environment, including influencers.

RAC, a professional organization for advertising standards, announces the launch of AdEthics in Romania, a platform dedicated to promoting high standards of transparency and responsibility in influencer marketing (<https://www.paginademedi.ro>).

Available to both content creators and influencer agencies, AdEthics comes as a natural evolution of the RAC mission, which for over 25 years has ensured self-regulation in advertising in Romania, based on the Advertising Code of Practice, which guides fair, honest and decent commercial communication.

The program is based on two complementary pillars: **training** – a fast, accessible and user-friendly online course, structured in six distinct modules covering the main chapters of the RAC Code of Practice in Commercial Communication, from the introduction to self-regulation of advertising and marking of commercial content, to maintaining an honest, legal and decent tone

towards consumers, social responsibility, copyright and data protection (GDPR) and **certification** – awarded after online monitoring by the RAC, as proof of the consistent application of ethical and legal standards. Together, these components create a complete system for training, assessment and support in influencer marketing communication, aligned with both national legislation and international standards.

## 6. Conclusions

Influencers have a significant contribution to the way people communicate, get informed and relate to the world. They have contributed to the democratization of public opinion, offering anyone the chance to become a relevant voice; they have changed the traditional structure of the press and advertising; they have created new forms of community and digital belonging; they have boosted online consumption, being among the main promoters of e-commerce; they have promoted humanitarian and social campaigns, as well as modern cultural movements.

Influencers are a major phenomenon in the digital age for communication and marketing, a category of people who are active in the online environment and who are attracting a growing audience every day. Influential and effective in 2025 are not necessarily *those with the most followers*, but those who manage to **provide the greatest trust and connection with their audience**. Success depends on **relevance, consistency and authenticity** - not just numbers. **They are opinion vectors and behavior models, true agents of change.**

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# THE COMMUNITY ECO-MANAGEMENT AND AUDIT SCHEME (EMAS), OPPORTUNITIES AND PERSPECTIVES FOR ROMANIAN ORGANISATIONS

Albu Mădălina<sup>1</sup>

**Abstract:** *The European Sustainable Development Strategy has as its main direction of action the optimization of activities and processes that generate environmental impact. In order to implement concrete actions to ensure the achievement of the proposed objectives, an instrument called the environmental management and audit system was developed. Its main role is to provide organizations that adhere to this eco-management and audit scheme with organizational, evaluation and audit support to improve the impact generated on the environment.*

*The implementation of the Eco-Management and Audit Scheme represents a voluntary commitment that organizations can make, resulting in the production of rigorous, independently verified reports, with the aim of creating a more realistic picture of the impact that various activities and processes have on the environment.*

*The present paper aims to identify the current status of the implementation of the eco-management and audit scheme in organizations in Romania, while also presenting the opportunities and perspectives offered by this commitment.*

**Key words:** *sustainable development, pollution, environmental impact, audit*

**JEL Classification:** Q01, Q53, M42

## 1. Introduction

The European Sustainable Development Strategy has as its main direction of action the optimization of activities and processes that generate impact on the environment. In order to implement concrete actions to ensure the achievement of the proposed objectives, an instrument called the environmental management and audit system was developed. The importance of preserving resources for future generations must inspire the entire population to be part of the solution to the challenges facing the planet (Chiş, 2024).

Its main role is to provide organizations that adhere to this eco-management and audit scheme with organizational, evaluation and audit support to improve the impact generated on the environment. The implementation of the Eco-Management and Audit Scheme (EMAS) represents a voluntary commitment that organizations can make, resulting in the production of rigorous, independently verified reports, with the aim of creating a more realistic picture of the impact that various activities and processes have on the environment. EMAS is the main management tool specific to environmental management, with the main role of supporting organizations, regardless of size and type of activity, in their efforts to improve environmental performance, as part of the concept of sustainable development.

The Environmental Management System (EMS) is defined as a "component of the general management system that includes the organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for the development, implementation, achievement, review and maintenance of environmental policy" (OUG 195/2005).

The implementation of the Eco-Management and Audit Scheme represents a voluntary commitment that organizations can make, resulting in the production of rigorous, independently verified reports.

Within the EMS, one of the most used tools is the environmental audit (or environmental audit procedures). Along with these, in recent years it has penetrated and consolidated its position

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as a voluntary self-control tool for environmental management - the Environmental Audit (Faur & Apostu, 2020).

## **2. EMAS – concepts, objectives, advantages**

Based on the concepts emerging from the European Green Deal, a strategy by which the European Union aims to become climate neutral, EMAS can be considered one of the main tools that organizations can use to contribute to the fulfillment of this plan by continuously improving their environmental performance.

The Eco-Management and Audit Scheme has the capacity to support companies and organizations in the implementation of all directives and commitments through which they comply with their climate commitments. All tools and methods used within EMAS are based on the recommendations of ISO 140001, but also come to maximize the requirements of international standards, with customizations for the European space.

### ***2.1. Defining concepts***

Participation in EMAS (Eco-Management and Audit Scheme) underlines the commitment of organizations that implement this instrument, to prove that they have a top ecological performance.

EMAS (Eco-Management and Audit Scheme) is a voluntary environmental management system regulated at the European Union level, which has as its main purpose the improvement of environmental performance. In order to implement EMAS, an initial environmental assessment is required, the organization having the obligation to be certified according to the ISO 14001 standard.

EMAS is based on the following key concepts:

- identification, monitoring and management of environmental aspects
- continuous improvement of environmental performance
- compliance with environmental legislation
- involvement of the organization's management and stakeholders.

The level of requirement for implementing EMAS is considered to be higher than in the case of ISO 14001, internal audits are carried out periodically, mandatory, and external audits are carried out by an authorized verifier. **EMAS include și depășește cerințele ISO 14001** (European Commission, 2014).

Through EMAS, organizations aim to:

- monitor and reduce their environmental impact
- increase the efficiency of their use of natural resources
- actively involve employees and the community in environmental objectives
- be transparent about their environmental performance.

The key to implementing EMAS is the analysis of the environmental impact that the organization generates. This analysis is mandatory and includes the analysis of resource consumption and the generation of emissions and waste (Official Journal of the European Union, 2009).

### ***2.2. Objectives and advantages***

The main advantages derived from EMAS registration refer to:

- increased credibility with all stakeholders

- improved image of the organization
- increased competitive advantage at local, national and European level
- improved environmental performance
- new business opportunities
- Use of the EMAS logo.

At EU level, a number of Member States are trying to offer additional benefits to EMAS-registered organisations, such as simplified reporting obligations, lower waste charges and longer periods between renewals of authorisations (Zincă, 2013).

From an economic point of view, EMAS brings a number of benefits, such as:

- reduction of production costs through savings in resources used
- reduction of expenses caused by poor application of environmental regulations or infringement of legislation.

In order to ensure the consistent and efficient application of the procedures included in EMAS, a guide was established at the European Commission level that sets out the steps required to participate in the EU environmental management and audit scheme.

According to this guide, a study was carried out on the costs and benefits deriving from EMAS registration. The survey participants were asked to select from a given list the effects that proved to be the most positive (European Commission, 2013).

The results of the study conducted at the European Commission level showed the following order of statements regarding the positive effects of EMAS implementation (figure no. 1):

- energy/resource saving – 21%
- reduction of negative incidents – 18%
- better relations with stakeholders – 17%
- more opportunities on the market – 12%
- improved productivity – 11%
- financial savings – 9%
- staff recruitment and loyalty – 8%
- other aspects – 4%.

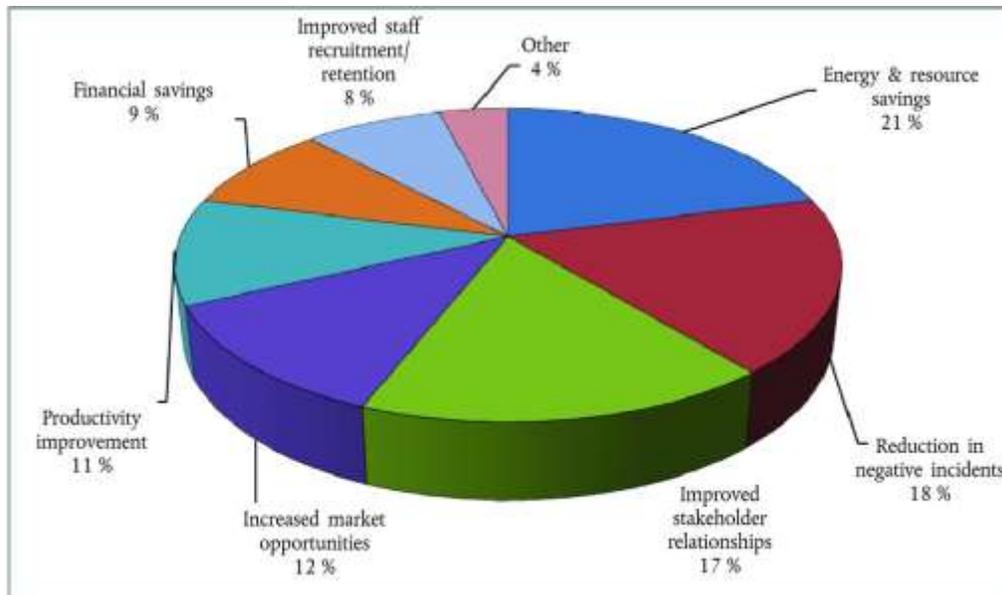


Figure no. 1. Benefits of implementing EMAS

Source: European Commission(2013),  
*Guide setting out the steps needed to participate in EMAS*

The results of this study confirm the importance of EMAS registration, both for the organization that does so, and for all stakeholders. Encouraging suppliers and customers to do so can bring concrete advantages to all parties involved, from establishing relationships based on trust to simplifying procedures between partners.

### 3. Opportunities and perspectives for Romanian organizations

According to the Ministry of Environment, Water and Forests, EMAS is the European environmental management tool designed to support organizations in continuously improving environmental performance, integrating the concept of sustainable development (MEWF, 2025).

Affiliation to European regulations is achieved by adopting national regulations, the main ones of which are:

- Government Decision 57/2011 on the application of Regulation (EC) No. 1221/2009.
- Order of the relevant ministry 1541/2011 on the organization and functioning of the EMAS Committee.
- Order of the relevant ministry 2086/2011 on the EMAS registration procedure.

Organizations from both the public and private sectors receive support and advice in completing the steps necessary for EMAS registration.

The opportunities arising from this registration are obvious and bring major advantages; therefore, it is important for organizations to understand the benefits of this approach.

One of the main advantages is the possibility of using the EMAS logo by organizations that are registered, during the validity period of this registration (figure no. 2).



Figure no. 2. EMAS logo – The EU Eco-Management and Audit Scheme

Source: <https://mmediu.ro>

In Romania, SMEs benefit from free assistance for compliance with legal requirements in the field of environmental protection, thus facilitating access to EMAS (MMAP, 2025).

The initial registration in EMAS requires several steps such as:

- carrying out an environmental analysis
- implementing an environmental management system in accordance with the international standard ISO 14001
- carrying out an internal audit
- drawing up the environmental statement
- verification of all documents by an accredited environmental verifier.

In order to receive an EMAS certification, compliance with the requirements of the ISO 14001 standard is mandatory. In addition, EMAS requires:

- continuous improvement of aspects related to environmental performance
- compliance with the legislation in force
- Involvement of all stakeholders.

The analysis of the documents available on the European Commission's website, for water and forests, shows that in Romania there are not many organizations that have understood the importance of registering in the EMAS register and that have taken steps in this direction, compared to other European countries (figure no. 3).

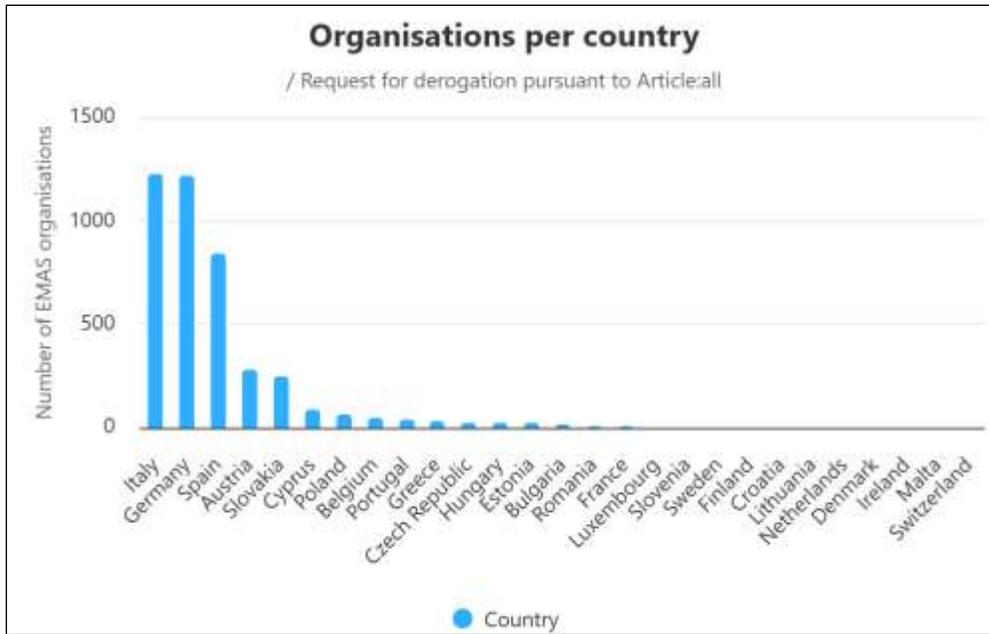


Figure no. 3. Number of EMAS registrations/country  
Source: Comisia Europeană, 2025

The existing public information shows that the trend of EMAS registration is not optimistic. In recent years, there has been no obvious jump in the option to take this step (figure no. 4).

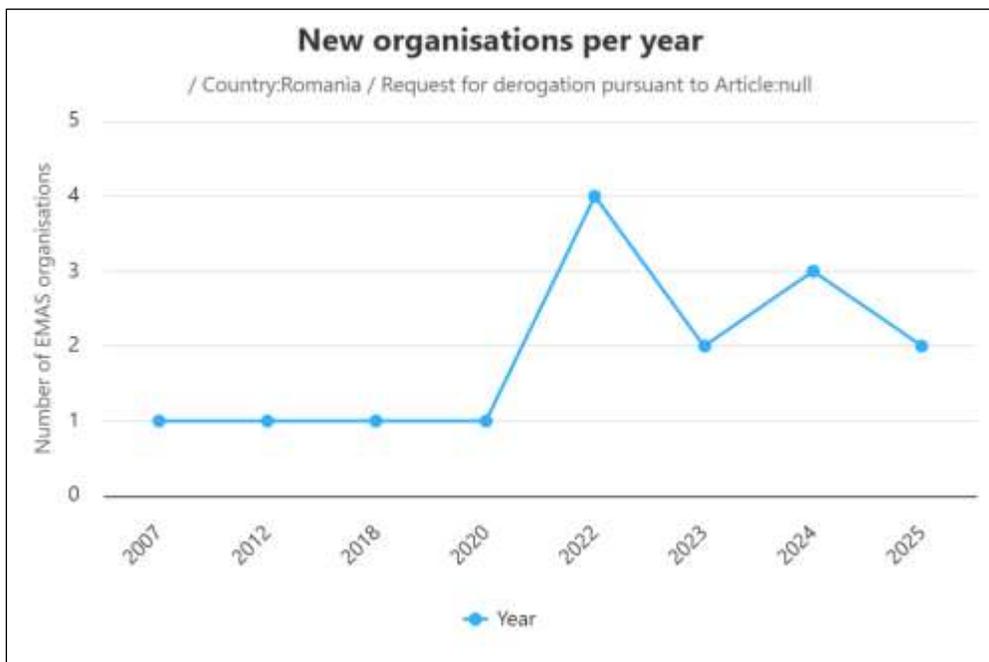


Figure no. 4. Romania - new EMAS registrations/year  
Source: Comisia Europeană, 2025

In order to encourage as many organizations as possible to access the EMAS register, Romania is trying, through the authorized institutions, to offer a series of facilities in the field.

Reducing the verification period, providing financial support, publishing the environmental statement after a longer period of time, are opportunities that interested organizations can benefit from.

#### 4. Conclusions

The EMAS eco-management and audit tool represents one of the major opportunities that organizations in European countries can use to improve their environmental performance.

Even though the use of this tool is voluntary, through a real, constant and systematic approach to ecological and environmental issues, a real commitment to environmental protection can be demonstrated, in accordance with European legislation.

The analysis of the current situation in Romania regarding the number of organizations registered in the EMAS register, compared to that at European level, shows that the promotion of the advantages offered must be reconsidered. The small number of organizations that have accessed this opportunity indicates a poor understanding of the advantages, a fact that must be quickly improved.

It is true that registering in EMAS involves a series of costs, difficulties, and requires additional human and financial resources, but positive aspects and opportunities should prevail.

As a general conclusion, starting from the specialized literature, specialized websites, legislation and provisions in force, based on our own analysis, it can be stated that EMAS is a safe option for addressing environmental issues, generating opportunities, which should not be missed by organizations in European countries.

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# RULE OF LAW IN MEMBER COUNTRIES AND IN OTHER STATES

Nedelcu Iulian<sup>1</sup>

**Abstract:** *The state is a reality, it is present in the daily life of all citizens and is embedded in numerous areas of social activity. However, it is an abstract concept, it is a support for power and allows the distinction to be established between the rulers and the ruled.*

*Europe is in the midst of reconstruction. Here is a great hope, which will only be realized if history is taken into account: a Europe without history would be orphaned and unhappy. Time flows forward, and today is drawn from yesterday, and tomorrow is the fruit of the past. A past that should not paralyze the present, but help it to be different. The functioning and nature of the state cannot be understood without first investigating its origin and historical formation.*

*A picture according to a nuanced historical-political analysis is often spectral, but the amplitude can change or extend, as, for example, during a revolution. The transformation of great cultures, centers and vacuums of power, empires and universal religions, slavery, thinking in apocalyptic categories and the chiliastic solution are found throughout the historical process as elements of a frequently interrupted continuity.*

**Keywords:** state, everyday life, time, history, past.

**Calificarea JEL:** K23 (Regulated Industries and Administrative Law)

## ***Introduction:***

The state is a reality, it is present in the daily life of all citizens and is included in numerous areas of social activity. However, it is an abstract concept, it is a support of power and allows the distinction to be established between the rulers and the ruled.

Europe is in the midst of reconstruction. Here is a great hope, which will only be realized if history is taken into account: a Europe without history would be orphaned and unhappy. Time flows forward, and today is drawn from yesterday, and tomorrow is the fruit of the past. A past that should not paralyze the present, but help it to be different. The functioning and nature of the state cannot be understood without first researching its origin and historical formation.

A picture according to a nuanced historical-political analysis is often spectral, but the amplitude can change or extend, as for example in the course of a revolution. The transformation of great cultures, centers and vacuums of power, of empires and universal religions, of slavery, thinking in apocalyptic categories and the chiliastic solution are found throughout the historical process as elements of a frequently interrupted continuity.

What remains is the alternation between persistence and change, between connections and continuities collapsed in themselves, as an innovative continuation of an existence full of lessons, but also the tense relationship between change and force: all important changes in history have so far occurred through the use of force or have triggered the use of force after an internal (revolts, revolutions) or external (wars) mechanism and most often after a more complex mechanism between internal and external. Thus, history does not simply allow itself to be forcefully introduced into a Procrustean bed of the "primacy of foreign policy" or the primacy of internal policy: internal

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and external factors are constantly intertwined, often they cannot be separated in historical reality, because in many cases they are themselves composed of internal and external sub-factors.

We must emphasize in this regard the essential unity of the historical process in time and space, despite the overwhelming abundance and diversity of human activities and conduct. Numerous historical mechanisms are in principle everywhere and always valid.<sup>1</sup>

The state is an ancient human institution, dating back about ten thousand years, to the era of the first agricultural societies that emerged in Mesopotamia. In Europe, the modern state, with its large armies, fiscal powers, and centralized bureaucracy that could exercise sovereign fiscal authority over a vast territory, is much more recent, dating back about four to five hundred years, to the consolidation of the French, Spanish, and Swedish monarchies. The rise of these states, with their ability to guarantee order, security, law, and property rights, made the modern world possible.

The Roman state was formed around the middle of the 6th century BC. The periodization of the history of the Roman state has been done according to the three forms it experienced: royalty, republic, and empire. Republican Rome was never a democracy like Athens, but remained constantly under the rule of its nobility.

In the Europe of the Middle Ages, one could not speak of states in the current sense, that is, of political constructions that encompass all the individuals of an extensive territory. Only recently have we learned that states represent relatively recent appearances in European history. The image of the Middle Ages as it was shaped in the minds of educated Europeans in the 19th century differed only insignificantly from the image of the state configuration on the eve of the French Revolution: the existence of relatively stable feudal states is assumed, at the head of which were kings, who exercised their power over the people divided into estates: at the top of the hierarchy was the aristocracy, followed by the bourgeoisie, and finally the peasants. States were perceived as an immemorial, eternally human organizing principle, "original creations of the human spirit", as Leopold von Ranke called them, we could say ideas of God".<sup>2</sup>

The first modern state to be established on a long-term basis in Europe was France. The crown domain belonging to the French sovereigns, located in the Ile de France, remained insignificant until the 12th century compared to the great duchies of the world.

In France, the *curia regis*, the royal crown council, had changed its character since the 12th century; the circle of large landowners who advised the king on important decisions had been transformed into a governing and judicial body, made up of minor nobles, clergy and burghers, all knowledgeable in Roman law, appointed and paid by the king.

At the latest by the beginning of the 14th century, the foundations of the modern centralized state had been laid in France, as it appears to us in an almost finished form in the France of Louis XIV. The character of the laws, whose concluding formula had until then been: "in the presence and with the consent of the prelates and barons", was correspondingly modified. With the beginning of the 14th century, it can be read instead: "Le roi a ordonné et établi par délibération de son conseil" that is, the king ordered and decided in the crown council".

Until the French Revolution, the monarchy remained the standard for the concentration of state power throughout Europe; however, it was reduced to an intermediate, often only indirect, power, whose task was primarily to mediate as an arbitrator and judge between the largely autonomous regions of the country, between the various social groups and the public good of the state,

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<sup>1</sup> Geiss I., *History of the World from Prehistory to the Year 2000*, All Educational Publishing House, Bucharest, 2002, p. 15 et seq.

<sup>2</sup> L. von Ranke, *Das politische Gespräch*, in *Sämtliche Werke*, Leipzig, 1887, p. 329.

smoothing over differences. The fact that the modern European state did not allow the concentration of power in one hand from the very beginning has several causes. One of them is to be found in the separation of Church and State resulting from the quarrel over the investiture. The classic example for the establishment of a balance of power between the crown and the estates was England, but the dual authority had a different appearance in each country. In France, the crown also needed the consent of the Estates when exceptional financial circumstances required additional revenues. But unlike in England, French monarchs generally managed to avoid convening the Estates General, which implied a significant diminution of the sovereign's freedom of action.

The French Revolution would translate the concept of the absolutist state into reality, introducing the revolutionary unitary state through armed violence and mass terror. The French example exerted an overwhelming influence on Europe in the 17th and 18th centuries. During this period, almost all the states of the continent transformed themselves into absolutist regimes; However, external similarities, the general tendency towards the theatrical staging of princely power within the court, the numerous imitations of the court of Versailles, the European hegemony of French taste and language cannot hide the profound differences existing between European states despite the trend of referring to the model of Louis XIV. Each country had formed its Constitution in the light of its own historical configurations, and the absolutist model was adapted to situations, to the highest degree individual, shaped over the centuries. One can therefore only speak of the absolutist state itself from a strictly theoretical perspective; in reality there were as many approaches to the absolutist state model as there were states.

Broadly speaking, it can be said that from the feudal relations of the Middle Ages and the Renaissance in Europe, the essentially secular state crystallized, freed from the tutelage of the Church and at the same time an authoritarian sovereign state. In the civil and religious wars of the 16th and 17th centuries, the question of state power and sovereignty was decided; the monarch and the state were confused, at least theoretically; the sovereign now had the monopoly of legitimate physical violence.<sup>1</sup>

Only the state had the legitimacy to demand of its subjects to give their lives and to kill in case of armed conflict or to execute individuals outside the state, with the corresponding license to decide in the form of a sentence on the life or death of the individual.

The gathering of the entire power of a nation in one place for the purpose of destroying another nation was an idea that had appeared fleetingly in a nationalist phase of the wars of liberation from 1813, ultimately rejected by the state leadership and the army in all countries of Europe. The conservative reaction had meant not only a rejection of democracy, the republic and the liberal constitution, but also a return to the basic rationalist political principles of the absolutist era.

The old laissez-faire liberal state of the pre-war period was now completely outdated.<sup>2</sup> In any case, there was a formula close to it, since by the end of the 19th century almost all the states of Europe had already begun to dominate the economic and social sphere. The Prussian-German state in particular had become a pioneer in this respect, by regulating sickness insurance against accidents, by establishing protective tariffs for the local old-age industry, by trying to prevent the excessive proliferation of associations by means of subsidy control and cartel legislation, and even by directly influencing the fixing of the market price for electricity production and the demand for fuel. It turned out to be a great mistake, of course, that the liberals pointed to England as a model

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<sup>1</sup> Weber M. , Discursul inaugural de la Universitatea din Freiburg, 1895, p. 21.

<sup>2</sup> Țăranu A., Contemporary Political Doctrines (<http://filosofiepolitica.files.wordpress.com/2008/03/lect-andrei-taranu-doctrine-politice.pdf>)

for a socially and economically uninvolved liberal state. England itself, the standard of liberalism, had to accept the reproach made by the liberal newspaper *The Economist*, which claimed that the state had in the meantime taken over the role of universal intervener<sup>1</sup>, and in 1911 the socialist Sidney Webb noted with delight that if the English state did not actually exercise all industrial activities, it "registered, inspected and controlled" them.

The war had made this evolution towards an economically and socially intervening state irreversible. The expansion of state activity, its growing involvement in the economy and society, was the answer to a problem that almost all European states were facing after World War I, given the growing lack of legitimacy of democracy, whose institutions were proving unable to remove the profound social dysfunctions that the war had created.

Most of the post-war democracies were caught in the grip of extremes of the left and right, while social and economic problems worsened. Antagonisms between states became more acute, as did those within them: extremist, nationalist, and communist parties gained ground at the expense of a democratic middle ground and now dominated public debate, while the threat to internal peace in the new states formed by the Habsburg, Russian, and Ottoman Empires grew ever stronger from the national minorities of Eastern Europe, who also demanded the right that had been granted to other, more fortunate nations: that of constituting nation-states. In short, Europe was on the verge of war both between states and within them. The new beginning of 1945 brought to an end the older developments that emerged at the end of the First World War: the creation of sovereign nation-states. The tension of continuity and discontinuity created after the Second World War is what gave rise to a new identity. The states that reestablished their unity, this time relegitimized themselves on the basis of the sovereignty of the entire people, established new boundaries. The intermediary between them was law.

It is safe to say that in the 20th century, politics was heavily influenced by controversies over the appropriate size and powers of states. The century began with a liberal world presided over by the world's leading liberal state, Great Britain. As the years passed, the century was subject to wars, revolutions, economic crises, that liberal world order disintegrated, and the minimalist liberal state was replaced in certain parts of the globe by a much more centralized and active state, a state that granted itself increased powers.

The reduction of the size of the state sector was the dominant theme of the end of the century, when the collapse of the extreme form of statism, communism, gave further impetus to the movement to reduce the proportions of the state in non-communist countries, a situation predicted as early as 1956 by Hayek<sup>2</sup> sau, as Huntington says<sup>3</sup>, the third wave of democratization had

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<sup>1</sup> Marin V., *United Europe and the Heritage of Nations*, in *Geopolitica Magazine*, year III, no. 13 (3/2005), Top Ford Publishing House, Bucharest, pp. 15-40.

<sup>2</sup> Hayek Friedrich A., since the mid-20th century, drew attention to the connection between the communist state and the modern welfare state, *The road to serfdom*, University of Chicago Press, Chicago, 1956.

<sup>3</sup> S.P. Huntington S.P., *The third wave: Democratization in the late twentieth century*, Oklahoma City, 1991: Regarding the form of the state, the political-legal concept is one of the oldest concepts resulting from the study of the state phenomenon in general, and of state organization and leadership in particular.

In constitutional doctrine, the form of the state is analyzed under three aspects: the form of the state structure; the form of government; the political regime. Although distinct, the three aspects are closely related and conditioned by each other. We would like to specify that the form of the state is not an integrative concept, which would include in a theoretical synthesis the three aspects stated. It can be said that the form of the state appears under a threefold appearance according to distinct criteria. These three criteria are: the way of organizing and exercising sovereign power on the territory of the state; the body invested with the prerogatives of head of state; the methods of governance. Depending on the three criteria, the state will take on a certain form: unitary state/federal state; monarchy/republic; will have a democratic/autocratic or authoritarian political regime. Regardless of its size, economic or military potential, any state, as a sovereign entity, has the prerogative, by virtue of its sovereignty, to decide, freely and in accordance with the constitutional provisions, what form of government, structure or political regime to adopt. State structure, from a conceptual point of view, represents the way of organizing power in relation to the territory of the state. It is

begun."

The law now had the task of regulating the new democratic relations, of becoming a barrier to arbitrariness. From now on, the rule of law is no longer just a necessity, but becomes an interference of society, a reality, a standard of the existence of the national state. Section 2. Models of state organization in the European Union.

### 1. Introductory considerations

In the French system, at the top of the administrative pyramid stands, with the role of guarantor of the legality of the activity of the public administration, the Council of State (Conseil d'Etat) which, as specified in the doctrine<sup>1</sup>, plays a decisive role in limiting the powers of the executive, especially through the use of the procedural means of appeal for excess of power<sup>2</sup>. The analysis of the Romanian legal literature on the Council of State reveals a comparative and synthetic approach to this prestigious institution which, as has been shown, in its activity assumes a double function: jurisdictional and consultative. The Council is the supreme administrative jurisdiction that annuls all administrative acts issued in violation of the principle of legality and rules on its responsibility. The citizen is thus effectively protected against the excesses of the executive power. A judge of rapid procedures, in case of emergency it can order all the necessary measures to defend a fundamental freedom that a legal person would have violated. The Council of State can also easily compete with the Constitutional Council in its own field. Essentially, administrative law, which is its work, served as a reference for the latter.<sup>3</sup>

The French model has also penetrated other countries<sup>4</sup>, in the form of administrative courts separate from the common law courts, including Romania, which received it by establishing it through the Law of February 11, 1864, for a period of only 2 years.<sup>5</sup>

French doctrine makes differences in the identification and hierarchy of sources of legality between written norms that do not come from within the administration (such as the Constitution, international conventions, legal acts of the European Union, laws), judicial practice and general principles of law, norms that come from within the administration itself.<sup>6</sup>

In Germany, as a federal state, the sources of legality are found in the Constitution.<sup>7</sup> and the

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unanimously accepted in constitutional doctrine that, from the point of view of state structure, states can be divided into two categories: unitary states and composite states. In addition to these two main categories, the constitutional history of some states records particular forms of the aforementioned categories.

<sup>1</sup>Schwarze J., *Droit administratif européen*, Office des Publications officielles des communautés européennes, Bruylant, 1994, p. 224-225.

<sup>2</sup> Lazăr A.-R., *Legality of the administrative act*, op. cit., p. 52.

<sup>3</sup>Alexandru, C., Gilia, I. & Ivanoff, I.V. (2008), *\*European Political-Administrative Systems*, 2nd ed., Hamangiu, Bucharest, pp. 261-262; 1st ed., *Bibliotheca*, 2007, pp. 221-222. Alexandru, I., Cărăușan, M., Gorjan, I., Ivanoff, I.V., Manda, C.C., Nicu, A.L., Rădulescu, C. & Săraru, C. (2007), *Administrative Law in the European Union*, Lumina Lex, Bucharest, pp. 162-164. Iorgovan, A. (n.d.), *Treatise on Administrative Law*, op. cit., pp. 44-45. Alexandru, I. (2003), *Comparative Administrative Law*, 2nd ed., Lumina Lex, Bucharest, pp. 284-292. Alexandru, I. (2008), *European Administrative Law*, *Universul Juridic*, Bucharest, pp. 145-147.

<sup>4</sup> Example: Belgium, Italy, Luxembourg, the Netherlands and Greece.

<sup>5</sup> The Council of State in Romania was established as an advisory body to the Government, with tasks also as an administrative tribunal, and functioned for only 2 years, until the adoption of the Constitution of 1866.

<sup>6</sup> Ch. Debbasch, *Institutiones et droit administratifs*, 4 éd., Presses Universitaires de France, 1998, p. 334-351; A. van Lang, G. Gondouin, V. Inseguet-Brisset, *Dictionnaire de Droit Administratif*, op. cit., 1997, p. 173; J. Morand-Deville, *Cours de droit administratif*, 5 éd., Montchrestien, E.J.A., 1997, p. 239.

<sup>7</sup> German administrative law is a concretization of constitutional law" Fr. Werner, *Verwaltungsrecht als konkretisiertes Verfassungsrecht*, DVBI, 1959, p. 527, apud A.-R. Lazar, *Legalitatea actului administrativ*, op. cit., p. 54.

rules valid at the national level to which are added the rules of European law, international treaties, decisions of the Federal Constitutional Court, principles of international law and the Constitutions and rules valid at the level of the Länder, as well as rules of local authorities.

The discretionary power of the administration has been analyzed in German doctrine with reference to the notion of opportunity. Professor Earnest Forsthoff shows<sup>1</sup> that discretionary power signifies the legal order created by conforming to the law everything that will be judged appropriate by the administration.

At the same time, it also shows that in this approach the administration is given a certain freedom through which they can take the measures they consider appropriate to fulfill the tasks for which that power was conferred on it.<sup>2</sup> The same author defines the notion of "discretionary power" as the legal order created by conforming to the law everything that will be judged appropriate by the administration, which, in our opinion, attributes the main role to legality in the activity of the German public administration, which is obliged to act with objectivity and in compliance with the law<sup>3</sup> principle established by the Constitution (art. 20 parag. 3) and other laws (as acts issued by Parliament).<sup>4</sup>

## 2. Unitary states

The unitary state is organized on the basis of the principle of unity and centralization. This form is the most widespread within the EU (France, Portugal, Poland, Hungary, Czech Republic, Lithuania, Romania, etc.).

The unitary state under the rule of law has the following main characteristics:

- it is formed by a single set of bodies through which political power is exercised at the central and local levels;
- the activity of government is distributed from the center hierarchically;
- there is a single legal order, based on a single constitution;
- the population has a single citizenship.

Although the state is unitary, its territory can be divided into administrative-territorial units or local communities. The subdivisions of the unitary state have an administrative character and do not constitute states within the state.

In the modern unitary state, founded on the principles of the rule of law, centralization plays a role similar to that in absolute monarchies, but, obviously, with different means and objectives. We have in mind, in this sense, the fact that the centralized state apparatus (the single or main decision-making center) represents, in reality, the entire nation and serves its general interests. In modern states, the centralization of power and its distribution by a single decision-making center are no longer for the benefit of a single person, but of the entire people<sup>5</sup>.

A variant of the unitary state is the complex unitary state. The association of the term unitary state with that of complex can give rise to a certain ambiguity. This ambiguous expression, however, qualifies an effectively complex reality.<sup>6</sup> The complex unitary state is one of the

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<sup>1</sup> E. Forsthoff, *Traite de droit administratif allemand*, trad. A. Fromont, Etablissements Emile Bruylant, Bruxells, 1969, p. 156, nota 191. A se vedea A. Iorgovan, *Tratat de drept administrativ*, op. cit., p. 93.

<sup>2</sup> Romanian doctrine criticizes the German author's thesis for the fact that it "does not distinguish between government acts and discretionary administrative acts". See A. Iorgovan, *Tratat de drept administrativ*, vol. II, op. cit., p. 93..

<sup>3</sup> Lazăr A-R., *Legality of the administrative act*, op. cit., p. 54.

<sup>4</sup> *Idem*, p. 54.

<sup>5</sup> Ionescu C., op. cit., p. 110.

<sup>6</sup> Cadoux Ch., *Droit constitutionnel et institutions politiques*, vol. I, Ed. Cujas, Paris, 1973, p. 108.

imperfect forms of the category of "unitary state". The complex unitary state is the unitary state which, without losing its structural unity, presents, at the same time, great local administrative, legislative, and even jurisdictional diversities, due to which historical enclaves with particularities of political, socio-economic, and legal development are preserved within it.

The origin of the formation of the complex unitary state is historical. The rulers must take into account the variety of aspirations and interests of the population, more or less homogeneous. At the same time, they are obliged to defend by all means the unitary character of the state.<sup>1</sup>

In practice, it is difficult to introduce the concrete realities existing in one state or another into the theoretical models presented. Complex unitary states are considered: the "incorporated union" and the "regional states".

An incorporated union is a state characterized by the unity of the central power, within which there is, in addition to a common legal basis, a diversity of legislation corresponding to a diversity of populations and territories "incorporated" to the state. In this situation, there is a single Parliament, but it votes distinct laws, which are not equally applicable to all regions inhabited by distinct populations, moreover, some regions have been given the possibility of establishing regional parliaments (for example, Scotland, 1999) or semi-autonomous assemblies (Northern Ireland, 1998).

Thus, the United Kingdom of Great Britain and Northern Ireland constitutes a unitary state (an incorporated union) in which the legislative regime is not uniform for all regions (England, Wales, Scotland, Northern Ireland). We can therefore state that the formation of incorporated unions is largely based on historical factors: England conquered Wales in 1536, Scotland in 1707, Northern Ireland between 1800-1921.<sup>2</sup>

Regional states were generated by the phenomenon of regionalism which expresses a geographical, political, administrative, linguistic, spiritual situation with historical roots in the development of a unitary state, due to which it opts for combining the sovereign attributes of centralized leadership with the attribution of a generally broad autonomy to regional communities.

The issue of regionalism is acutely raised in many EU countries with centralized political and administrative systems (Spain, Italy and even France). The form in which this issue was raised, however, was almost always determined by a political crisis.

Supporters of the regional state have invoked the inability of central political-administrative structures to offer viable and efficient solutions to the demand of social forces for participation in governance, the lack of political will of central authorities to respond to the need to redistribute power in favor of local administrative units. Its opponents have argued that such an organization threatens the very unity of the state and that it is a factor in its disintegration.

In this context, some authors consider that the Italian experience constitutes, by its scope, as well as by the originality of its content, a model for reflection for finding a *modus vivendi* between defending the unity of the state and invoking regionalism.<sup>3</sup> We considered it necessary to analyze the phenomenon of regional affirmation that has manifested itself in Europe and that has led us, at the institutional level, to a double dialogue, vertical and horizontal. The first refers to the dispersion of power corresponding to the relations that the regions develop or try to develop with the European institutions, the EU or the Council of Europe, and the second arises from the importance

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<sup>1</sup> See also C. Ionescu, *op. cit.*, p. 107.

<sup>2</sup> *Ibidem.*

<sup>3</sup> *Ibidem.*

that the regions attach to the direct relations that they establish between themselves. The year 1975 marks the moment of institutionalization, from this perspective, both of the relations with the European institutions and, above all, of the direct relations between the border regions.

### **3. The composite state**

Unlike the unitary state, the composite state is formed by several state entities united in a superimposed state and linked to each other by more or less close legal relations. Seen from the outside, the composite state appears as a state itself constituted by several state collectivities. It is therefore an association of "states" that forms a kind of super-state.

In the political history of some states, however, there have been rudimentary forms of composite states - states grouped under the general name of Unions of States and Confederations of States.

#### **3.1. Union of States**

The expression has a precise legal meaning, although in political language this term is sometimes abused to qualify as a union, the link existing between several states that have one or more objectives in common, but which are distinct from each other from a state point of view.

A true union of states exists when two or more states group together to form a new distinct political entity and to jointly exercise certain activities, especially in the fields of defense, finance and international relations. Within the union, each member state retains its internal and international legal personality, but agrees to entrust a common body with the responsibility of making decisions in the areas established by the legal act (treaty) that establishes the union.

The states constituted in a personal union have in common the institution of the head of state. most often, the monarch, each of them retaining its Parliament and Government, between which no relations resulting from the act of union were established. This form of organization was never very widespread, nowadays a reminiscence of it is considered the personal union between Great Britain and some Commonwealth states. In our history, it can be said that the Romanian states were reunited under Michael the Brave in such a form of composite state.

In the real union, the association bond between the component states is stronger: the union is led by the same person, the component states constitute common bodies that exercise, on behalf of the real union, state sovereignty in the fields of diplomacy, defense and finance.

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# THE APPROACHING OF THE INTERNAL AND EXTERNAL COMMUNICATION IN THE ORGANIZATION

Liliana – Victoria Gherman<sup>1</sup>

**Abstract** *In any organization, communication is a managerial tool for coordinating and motivating human resources. Managers must clearly convey tasks, and employees must provide feedback on activities performed or difficulties encountered.*

*Internal communication takes place between managers and employees, between employees and leaders vertically, but also horizontally, employees among themselves.*

*The role of communication in the organization also consists in developing organizational culture, thus the values and norms of the organization are transmitted through effective communication.*

*External communication takes place between the organization and its external environment, customers, partners, citizens.*

**Keywords:** communication, organization, organizational culture, manager, employees

**J.E.L Classification:** D83

To communicate is to emit sounds and words, but at the same time to think and know. In everyday life, people are faced with different situations that require specific behaviors and appropriate communication patterns. Thus, people must have a real culture of communication, namely how to speak, where, when, in what situation.

The dynamism of contemporary society determines the existence of competent, well-informed, cult specialist, not only in the strict field of current activity, good economic and political analyst, computer technology specialist, ethical and moral, etc., that is, a professional who understands and creatively applies democratic values in the human community where he carries out his current activity. Thus, communication is a process not only important but also necessary, the employees of organizations having the obligation to conscientiously perform their duties, in order to promote a favorable image for the institution in which they operate.

Communication - the exchange of information, ideas and feelings - has been defined as an interpersonal process of transmitting and receiving symbols that have attached meanings (E. Coffey, 1999, p. 246). Communication is therefore the phenomenon that allows the creation of links between people, between institutions and between institutions and people, connections similar to invisible bridges of information essence. Communication is a process of great complexity, difficult to decipher, which requires its simplification in order to understand it. The communication process consists of all the operations of transmitting and receiving symbols with the meanings attached to them.

It is considered that, along with motivation and professional training, communication is a necessity to ensure the effectiveness of any organization. In an organization, all members spend most of their time communicating in one form or another.

There is a great need to improve communication, as there is a need for greater collaboration between colleagues and between hierarchies, working groups become generalized and cannot be effective without good cooperation between all team members. In addition, changes in technology lead to transformations of organizational structures and activities.

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Managers play an increasingly important role in the process of organizational communication. On the one hand, managers process internal and external information, and on the other hand, managers also pass this information on to subordinates.

In this context, for increased efficiency, the organization's path goes through a permanent management of internal and external communication in order to improve and improve it.

Internal organizational communication takes place at several levels. The first form of communication is interpersonal or "face to face". In this respect, organizations are constantly pursuing the development of the expression, communication and writing skills of leaders and managers. Group-level communication takes place at the team, committee, service, and employee interest group level and focuses on sharing information, discussing issues, coordinating tasks, and solving problems to reach consensus.

Communication networks are the means of communication within an organization that can be formal or informal. In formal networks, the dissemination of messages is carried out through official channels (for example, newsletters, memoirs, informative notes) that reflect the organizational hierarchy. In informal networks, communication channels are informal, fast, and multidirectional (such as rumors, opinions, desires, and emotional expressions).

The exchange of messages within an organization, internal communication, whether vertical or horizontal, can be formal communication - when messages are transmitted through pre-established channels, or informal communication - when the circulation of information is done through channels that are not in the sphere of subordination relations (D. Jacob, 2014, pp. 86-88).

Thus, formal communication within the organization takes place on communication channels created together with a system of responsibility that reflects the organizational hierarchy. Are designed and managed in a way that allows the transfer of information vertically (between levels) and horizontally (between functional departments). Formal communication channels faithfully respect the relationships and hierarchies in the organization, and communication takes place primarily in three directions: top-down, bottom-up and horizontal.

Informal communication is also practiced when the exchange of information takes place outside the official channels, through spontaneously created channels. The emergence and existence of these channels are uncontrolled, constantly changing and functioning at all levels. They can exist in parallel with formal channels, especially when they are ineffective or insufficient information is disseminated through this channel. Informal channels can neither be banned nor eliminated.

For the organisation to function properly, these channels must, on the one hand, resist information transmitted through official channels and, on the other hand, be encouraged because they provide the best feedback. This is why managers must also use informal channels to be aware of and be able to counteract untrue and harmful rumors about organizational activities.

Informal contacts ensure the most effective contact between employees in the same department or in different departments, in parallel with the lateral communication channels, escaping the complex and slow cycle of formal communication.

For the proper functioning of the communication, both formal and informal communication must be taken into account. This is why it is important to create a communication framework that is sufficiently formal and flexible to allow informal feedback flow.

With regard to external communication, it can be said that it is conditional on any institution being an open social system that establishes relations with the related systems. Its management includes the configuration of the identity and its conversion into an institutional image, the

positioning of the institution on the market where it operates and its beneficial interaction with partners, suppliers, consumers and even competitors.

External communication is carried out in the area where the institution operates. In this case, some specialists call it community communication.

External communication is the bridge between the organization and the external environment in general, keeping the direction and the objective of the institution's activity. The manager is the main image bearer, as a symbol of the institution, having a special role in the context of interference with similar organizations, being obliged to take into account the specificity of the partner organizational culture in order to achieve sustainable communication and avoid possible conflicts.

Being in a permanent and direct contact with the social environment, an organization takes over "the shocks from it and tries to respond by initiating, at organizational level, actions oriented to changes, transformations, rebalancing. On the other hand, any transformation or change is felt externally, the administration influencing and shaping the social environment.

External communication can be a significant factor influencing the decision-making process, with leaders being able to be informed about current or potential instability elements and areas. Thus, the contribution of communication in the tendency to determine and eliminate, in real time, the negative influences, the disruptive factors that could affect the optimal functioning of the organization. In this context, it is interesting to note the importance given to communication in practice, which are its components and characteristics, given that the normative acts impose minimal rules in this respect.

It is thus noted that the scope of external communication is complex, with the provision of information of public interest through activities to promote and present the services offered to customers, collaborators, projects and initiatives of the institution.

Since one of the relevant functions of contemporary management in any organization is communication, namely the process that ensures the correct circulation of information within the institution, as well as in its relations with the external environment, the communication of the manager with the internal or external environment is effective to the extent that there is a high managerial capacity of the institution. In recent decades, the corresponding conception of contemporary management has been increasingly imposed, which implies a specialized managerial capacity, attributed to managers at different levels and a general one, of the company, in general, of the led entity.

Managerial communication is not only about sending messages, informing, training, persuading or motivating, but has become a dynamic and independent force, shaped by the environment in which it operates. The communication system creates powerful tools for continuously adjusting the organization's structure and processes to ever-changing conditions. The basic role of managers is to develop and keep alive the communication system meant to support the implementation of the organization's strategy. Hence the urgent need to improve the communicator skills of the manager, communication within the organization, but also outside it. The manager represents the organization and transmits its strategies and policies, has the role of negotiator, he has to organize and maintain a network of contacts with the organization's partners and sources of information to support the company's orientation. We live or tend to live in an era often called the era „human capital” which, unlike the previous ages, of „technical capital” and of „financial capital”, is characterized by the constitution of the organization's capital from the knowledge, skills and experience of employees. The strategic resources of the organization become information, knowledge and creativity. All this is unthinkable outside of effective

communication, thus becoming a tool of competitiveness of the organization (R. Whena, D. Whena, 1996).

Communication is of particular importance both in organizing and conducting certain events, it aims to remove the enterprise from current activities, achieving complex relationships with the public and developing common interests. An enterprise resorts to organizing certain events to give new valences to communication and to maintain lasting and close relationships with the public.

Communication at certain events presents a number of advantages, such as: leaving the daily routine; trying to produce a shock effect with few means, to attract attention and arouse interest; promoting the development of direct and privileged contacts, which can be used both in internal and external relations.

Among the objectives and purposes of communication in certain events, it is noted that, using the same amount of money, contact is made with more people and attention is drawn to more things in a certain setting than in traditional advertising, to which contribute to a great extent and journalists who participate in these events.

Communication at events manages to convey a real and dynamic image of the company; contributes to the organization and mobilization of the company's personnel; draws attention to the enterprise, brand, products and projects of the future.

The event will have an impact on all guests, these being the main customers, suppliers and distributors; shareholders, financial and banking institutions; public power; opinion carriers; journalists etc.

Events that can facilitate this specific type of communication can be: anniversaries, building openings, industrial or commercial partnership, the launch of a new product, national and international holidays and many other festive occasions.

Communication in certain events aims to create another dimension of the enterprise or brand, to remove it from the daily routine and to achieve complex relationships (O. Moarcas, 1999, p. 68).

Within the organization, the problem of communication is not solved only by setting up a communication compartment. The employees of that compartment, even all the employees of that institution, must have the desire to communicate, both inside and outside. This is particularly true in relations with the public and the media. Therefore, the personnel of these compartments should be well selected from the moment of employment.

Credibility in communication shall be ensured only if it is based on true aspects of the institution itself.

For the proper conduct of an organization's activities, it is necessary to intensify communication with the outside environment.

External communication refers both to the exchange of information of public utility and to the maintenance of social ties (P. Zemor, 1995, p. 89).

External communication is an activity carried out by public institutions to satisfy the public interest. The information transmitted includes information about public utilities. Its purpose is to enable citizens to understand the modalities and functioning attributes of the institution, the legality and appropriateness of the decisions taken and, at the same time, to understand the needs and wishes of the public through external communication, so that public institutions can be recognized through specific roles and attributions.

It is recommended to practice external strategic communication, having as basic forms: developing communication relations with the external environment and anticipating the

evolutions and changes that may occur outside the organization and may affect its activities. The organization tries to survive in an external environment, necessarily competitive, by establishing profitable relationships with its key players: local authorities, directors of other organizations, often with people considered influential.

However, they are associated with the idea that they may be useful in the event of a crisis or other unexpected event. Careful observation of the external environment and forecasts of its evolution are carried out by certain members of the organization who capture all the information considered strategic.

It is important that each employee easily assume the role of external communicator, whose message is focused on the seriousness, efficiency and quality demonstrated by the organization. But this requires the employee to know, believe and want, that is, to feel the need to talk about the organization.

Each organization may choose communication processes, the option being based, among other things, on their informative capacity. The informational capacity of a communication system refers to the extent to which that system determines the personnel of an organization, in some time, to accept a change of conception. The „richest” systems in this sense are face-to-face media, especially professional advice or working meetings. The perceptions and judgments of the participants are the object of mutual information that creates the referential framework of a collective vision.

Communication systems can be very well used in solving difficult problems, respectively, when the situation is not subject to a single interpretation, when it is not very clear what the problem is and what information is needed to foresee a potentially correct solution.

Information capacity and, as such, communication depend on a certain climate.

It is worth considering that, in an organization, there are people of different origin and invoice. Thus, different are the social origin, biography, opinions, ideals or ideas, the process of communication being, because of this, often difficult or, more than that, making room for pseudo communication. Also, managers with a strong personality impose a certain communication style on their collaborators.

In order to be effective, the information system takes into account the information that is needed by an organization. The main contribution that computer scientists can have in this direction focuses on the first phase of elaboration, the analysis phase of the necessary information.

In principle, there would be the following ways to determine the need for information: direct questioning, analysis of the pre-existing information system, analysis of the organization as a whole, experimentation of a new information system or prototype.

The option for one or another of the mentioned modalities depends on the experience and intelligence of the person who creates the information system, as well as the specifics of the field.

In conclusion, there is a complex connection between communication and information. Information is both the source on which communication is based, and the way it is expressed, its reason for being. We communicate correctly, if we rely on correct information, but also if we correctly render the information held. We guide in a certain way the auditor or the dialogue partner according to the quality and novelty of the information we provide, as well as the way we communicate that information.

One and the same information may be perceived and assimilated by the receiver as a result of clear communication, appropriate to his cultural training and aspirations or not received, if recourse is made to a confused communication or defy the peculiarities and aspirations of the person to whom it is intended.

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# ASSERTIONS AND REFLECTIONS ON DISCLOSURE AND TRANSPARENCY THEORIES WITHIN CORPORATE GOVERNANCE

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Budui G. Maria<sup>3</sup>

**Abstract:** *Corporate accounting has undergone a significant shift in recent years, as it involves providing users with financial and, especially, non-financial information. This study aims to show the role of corporate reporting in the contemporary society, marked by phenomena such as dematerialization and digitalization, the increasing importance of environmental and social aspects in business, the (re)-legitimizing of the actors involved in producing, auditing, and publishing corporate information in the context of multiplying forms of risk, uncertainty, and globalization. Several published research studies were reviewed, the concepts used in corporate disclosure strategies were evaluated, and connections between them were established. The research analyzes the implications of information disclosure in accordance with legitimacy theory, signaling theory, and stakeholder theory.*

**Keywords:** corporate governance, disclosure, corporate reporting, stakeholder theory, legitimacy theory, signaling theory.

**JEL Classification:** M41

## 1. Introduction

Managers use multiple modalities to transmit information to the market, which is essential for corporate reporting. They can communicate privileged data and estimates during financial results conferences or (earnings calls), through public statements, and via other reporting methods (Rustam Zufarov, 2020). Recently, the volume of information that companies must disclose has grown as a result of new concepts and practices. Since many sectors have introduced norms regarding what must be communicated, it is evident that disclosure requirements represent an essential aspect in the study of firm reporting.

Corporate governance is the main mechanism for maintaining transparency and integrity between a company and its stakeholders. It achieves this by ensuring equal access to information and by preventing board members from acting exclusively in their own interest. Essentially, legitimacy theory posits that firms have a kind of social contract with the public; to maintain their legitimacy, companies must be open and accountable for their actions, which preserve their legitimacy among stakeholders (Gezgin Talha et al., 2024).

Thus, numerous companies are currently applying disclosure principles, which highlight the importance of transparency and accountability in the reporting process. This is an interesting field of study. Accounting research has analyzed the factors that determine how firms communicate information; these factors emerge from the analysis of existing literature. Depending on the firms' characteristics, they adopt various accounting practices. It is clear that the effect of corporate disclosure and different accounting methods depends on the entity's characteristics. We have

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examined in detail studies related to International Financial Reporting Standards and the accounting for financial instruments. This article has been structured into four sections to present the research data: the first section introduces the topic; the second section describes the research method; the third section addresses the theoretical background and reviews the existing literature on disclosures within a regulated framework; the final section contains the conclusions and the presentation of the results.

## **2. Research Methodology**

It is understood that both the search and selection functions for materials must be accurate and clearly documented; this approach has been used in reviews for recent studies in business and social sciences. The current research method focused on literature review; this technique aimed to identify knowledge gaps and analyze previous articles related to the researched subject. However, the evaluation of relevant works depends on clearly defined norms (Eierle et al., 2022).

Through the literature review, the principle of information disclosure has evolved in several interesting directions. We applied a qualitative approach, exploring the subject through scholarly sources such as books, journals, and scientific articles. Our study targeted the rules regarding disclosures in financial reporting and the main associated theories, such as legitimacy, signaling, and stakeholder theory. Furthermore, in this paper, we aimed to express interest in disclosure in corporate reporting.

Two main questions were formulated for this study:

- What motives or factors drove corporate disclosure?
- What are the main ideas or theories that explain how companies disclose information?

## **3. Literature Review**

### **3.1 Justifications Supporting Financial Statement Reporting, According to IFRS**

International Financial Reporting Standards (IFRS) represent a set of regulations and guidelines that govern the presentation of various types of accounting events and operations in financial reporting. Accounting standards have been implemented globally to unify and increase the quality of financial reporting.

The main purpose of developing IFRS was to make financial reports globally comparable. Around 2005, companies and accounting practices became increasingly globalized, particularly in the management of financial resources. That's when the idea of adopting a single set of rules for financial reporting, called IFRS, emerged. Practically, IFRS facilitates companies from different countries in maintaining and conducting consistent and coherent accounting (Deepa Sahai, 2019).

New developments in global trade generated a greater need for capital, which explains the growing importance of IFRS. National accounting systems had to conform to international financial reporting standards under these conditions. Establishing a single set of standards allowed

for the simplification of accounting procedures, enabling firms to prepare reports using a common language, providing investors and auditors with a clear picture of the company's transactions (Tabarak and Ibrahim, 2023).

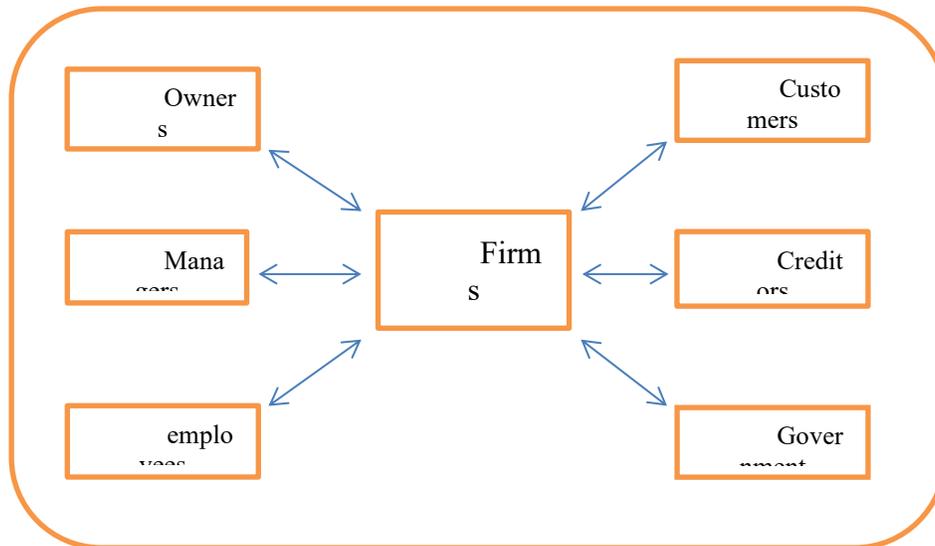
The imposition of uniform reporting requirements represented a viable interest for comparing the evolution of financial statements; for instance, when firms use IFRS in a consistent model. The integrity of the financial reporting process has increased investor confidence in the perceived standards. Financial performance can be assessed more easily by external investors, improving their decision-making capacity. Ensuring the accuracy and verifiability of financial information are essential. The development of the global economy has emphasized the obligation of stakeholders to be accountable and transparent. Stakeholders' perceptions are influenced by the selection of accounting standards, in accordance with regulatory requirements (Nikitas, 2024).

### 3.2 Stakeholder Theory

In accordance with the stakeholder engagement principle, an enterprise should strive to increase and fairly allocate the interests of all its stakeholders to ensure that everyone receives some benefit. A company's obligations might seem to primarily serve its self-interest; however, it must also consider the interests of society as a whole.

Thus, the concept of stakeholders has considerably expanded the scope of corporate governance. As shown in Figure No. 1, a company's stakeholders include employees, managers, owners, creditors, customers, governments, and the general public. Initially, managerial regulations were correlated with stakeholder theory, but over time, new perspectives and modifications were added, and as a substantial theory, it is now recognized within corporate governance. Assessing entrepreneurial risks and supporting strategy creation are considered advantages of using stakeholder theory (Barney & Harrison, 2020).

**Figure. No. 1 Stakeholder Groups**



Source: Yara Ahmed, (2023)

Stakeholder theory analyzes the relationship between enterprises and stakeholders, emphasizing how important it is to capitalize on financial performance through specific strategies while maintaining a competitive advantage (Viveros, 2017). This theory connects stakeholders with the various elements of the operating unit and organizational structures. The organization's long-term strategic objectives are affected by the influence of stakeholders, who play a crucial role in its ability to govern effectively.

Therefore, firm growth is critical for stakeholder efficiency in cooperation with management for the organization to be effective. Stakeholders must be involved in the strategic decision-making process at all levels. Knowledge exchange can lead to mutually beneficial community relationships when connected with the importance of communication between the organization and its stakeholders.

Research shows that stakeholders represent an important component in the functioning of an organization; they can be internal or external to the company. Managing stakeholders in an organization requires a high level of expertise, as it is essential to correctly identify them and clarify their expectations, problems, and opportunities to achieve a productive impact. Furthermore, it is necessary to develop and implement a plan for managing cooperation among stakeholders. It is well-known that different stakeholders have varied requirements from a specific business. Their desires are usually associated with establishing ideals and demonstrating social responsibility (Gita Lasytè, 2019). Regarding organizational management, it is important to consider how stakeholder involvement influences organizational efficiency. This varies depending on employees and external stakeholders, such as shareholders, leaders, and others who are interested in their contributions.

### **3.3 Legitimacy Theory – Alignment with Company Norms and Values**

According to legitimacy theory, organizations must be attentive to all their actions to ensure they align with the norms and values of the society in which they operate. This effort aims to consolidate community legitimacy. In this regard, every initiative undertaken by a corporation intends for its actions to be perceived as legitimate by external parties (Winarsih et al., 2025).

Enterprises are essentially committed to conducting their business in accordance with societal standards, the environment, and community stability. Legitimacy theory has been analyzed from two distinct perspectives: first, from the institutional level perspective—to what extent an entity's organizational frameworks are accepted and recognized as essential for achieving its objectives. Organizations whose products and services are accepted enjoy a substantial advantage over others. Second, the organization-level approach emphasizes how companies, through their operations and manifestations, do not violate culture but rather support and legitimize it to gain community acceptance (Olubunmi Adewole, 2022).

Legitimacy deficits appear when essential principles and beliefs are not respected or are ignored in the decision-making process. Societal norms can change, and an organization's ability to adapt decreases when it faces a legitimacy deficit. In such situations, the organization's hidden or non-communicated knowledge becomes relevant—what may seem logical or justified to the organization is not necessarily accessible or accepted by all external actors. Investigative and

review activities remain continuous. The power of organizations can be affected by the legitimacy deficit, especially when they are classified as activist; in these cases, trust in the organization can be jeopardized and must be managed effectively. It is argued that certain techniques can be applied to manage these deficits. Legitimacy procedures are vulnerable to damage if not consolidated by the company, making the problem more difficult to solve. Institutional norms maintain their credibility when they are respected by organizations, thereby attracting support and financing (Wil şi Chau, 2023).

Therefore, legitimacy theory is closely linked to theoretical perspectives and corporate social responsibility (CSR). It is also connected with stakeholder theory and other political and social theories. A stakeholder is any entity or individual who can influence or support the corporation's objectives. These concepts were formulated to highlight the needs of different stakeholder groups (Freeman et al., 2017).

Finally, according to stakeholder theory, a company's management must commit to and provide information that stakeholders deem essential. When discussing whether an organization fulfills its obligations to its multiple stakeholders, the term accountability frequently arises. From the perspective of stakeholder theory: stakeholders can be identified from the perspective of a single organization. The success of an enterprise is determined by its ability to manage these stakeholders; additionally, individuals have financial, social, and environmental responsibilities. For this reason, enterprises are paying increasing attention to all their stakeholders, which requires a deeper social agreement between a company and these actors.

### **3.4 Signaling Theory – Interacting with Stakeholders**

Signaling theory posits that management expresses and demonstrates a commitment to interacting with stakeholders. This can be achieved by correlating the company's mission and vision with predictive signals transmitted to the general public. Board members are selected, among other reasons, to provide the market with signals regarding changes in competitive strategies and to communicate events related to business sustainability to important stakeholders (Seong et al., 2018).

To resolve the problem of information asymmetry (or imbalance), an organization can use different means of communication with stakeholders—for example, producing an environmental report. One of the most effective ways to distribute information is the written report, which provides relevant and verifiable data.

In a typical communication framework, the sender decides how to transmit the information, and the receiver must determine how to interpret the signal. In the case of informational variation, the sender can choose to include or omit certain information, depending on the message they want the receiver to perceive (Yara Ahmed, 2023). The way financial information is presented can vary according to the organization's objectives.

The economic concept of signaling theory helps explain why companies voluntarily provide information to financial markets. The theory states that firms disclose financial data to

communicate the organization's fundamental economic attributes—such as growth capacity, profitability, and financial strength—to investors and other stakeholders.

The most effective way to transmit this information can be identified through the principles of signaling theory. Furthermore, the theory confirms that professionals and users of financial information must be able to correctly understand and interpret this data. Understanding essential financial indicators is a necessary condition for providing a true and fair view of a company's financial performance.

The theoretical framework provided by signaling theory clarifies the motives behind the voluntary disclosure of financial information by companies and draws attention to the potential benefits and obstacles of this type of reporting (Bendouzane et al., 2024).

#### 4. Conclusions

The research study aimed to evaluate the **diverse theoretical frameworks** used in the literature regarding corporate information disclosure. In numerous global contexts, in both developed and developing countries, **stakeholder concepts** have increasingly gained support. These theories define the role of various interested parties—governments, shareholders, and other participants—in how companies manage their resources to effectively satisfy the interests of each.

To increase the reliability of corporate reporting, **legitimacy theory** demonstrated that it reflects organizational objectives and presents numerous similarities with generally accepted views on **accountability to stakeholders**.

Furthermore, the literature analysis showed that most researchers rely primarily on **legitimacy and stakeholder theories**, as these theories shape disclosure patterns based on reporting requirements and demand the provision of information regarding efforts undertaken to prevent conflicts with stakeholders, as well as to implement feasible changes.

Our **recommendation for future researchers** is to also pay attention to other theoretical concepts that do not exclusively focus on these constraints, such as **institutional theory**, which can bring complementary perspectives on corporate information disclosure.

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# INVISIBLE FRAUD, VIGILANT ALGORITHMS: THE ROLE OF ARTIFICIAL INTELLIGENCE IN PROTECTING THE ECONOMY AND NATIONAL SECURITY

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**Abstract:** *In an era in which digitalization is rewriting the rules of accounting and financial control, artificial intelligence is becoming an ally, but also a challenge. This paper explores how cognitive technologies, namely machine learning, behavioral analysis and audit automation, can prevent complex economic fraud that is difficult to detect by traditional methods. The authors propose an interdisciplinary approach, located at the intersection of the financial-accounting field, cybersecurity and public order, in order to highlight the economic and societal impact of digital fraud. The case study analyzed, and the ransomware attack on Colonial Pipeline in 2021, reveals how anomaly-based detection algorithms could have limited the extent of damage and the consequences on energy security. The paper tests the hypothesis that the adoption of artificial intelligence in financial supervision must be accompanied by clear regulations, inter-institutional cooperation and the training of hybrid specialists, on the border between accounting, IT and security. In conclusion, the future of anti-fraud control depends on the balance between technological innovation, ethics and the protection of the public interest.*

**Keywords:** *artificial intelligence, ransomware attack, smart audit, public security*

**JEL classification:** H56, M42, O33

## 1. Introduction

The paper analyzes the role of artificial intelligence in the prevention and detection of complex economic frauds, in the context of the accelerated digitization of financial and accounting processes and the increase in cyber vulnerabilities. The evolution of digital infrastructures has led to the emergence of forms of fraud that are difficult to identify by traditional audit methods, with a potential major impact on economic stability and national security.

In this framework, artificial intelligence, through machine learning, behavioral analysis and anomaly detection algorithms, is emerging as an essential tool in the modernization of anti-fraud mechanisms. However, the integration of these technologies raises challenges related to data governance, ethics and regulation. The paper aims to answer the question: to what extent can artificial intelligence contribute to protecting the economy and national security by preventing digital fraud?

The objectives of the research are the following:

- analysing the role of artificial intelligence in the prevention and detection of digital economic fraud;
- assessing the economic and societal impact of fraud on critical infrastructure;
- examining the applicability of anomaly-based detection algorithms through the Colonial Pipeline case study;

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- identifying the limitations and risks associated with the use of AI in financial supervision;
- highlighting the need for inter-institutional cooperation and training of specialists with hybrid skills.

The global distribution of the causes of accidents in pipeline infrastructures highlights the predominance of human factors and operational dysfunctions, which account for a significant proportion of the total incidents recorded. Statistical analyses of international databases show that unauthorized excavations, third-party interference, operating errors and other causes related to the human factor are frequently reported alongside corrosion and damage to materials, which together constitute major components of the typology of accidents (Gaurina-Medimurec, 2025). Internal and external corrosion continues to be one of the most important factors of damage and incident, directly influencing pipeline integrity (Pipeline Safety Facts & Statistics, 2025). In contrast, extraordinary events and rare, albeit less frequent, safety defects are associated with the potential for disproportionate impacts on the environment and infrastructure.

The high share of human and operational factors supports the concept of "invisible fraud", in which dysfunctions are not immediately detectable by physical inspections or classic controls, but progressively manifest themselves through subtle deviations in systemic behavior. In the literature on the detection of fraud and emerging risks, the need for advanced analytical approaches capable of capturing complex behavioral patterns and operational anomalies that are not visible by conventional statistical methods is emphasized (Moura et al., 2025). Vigilant algorithms, based on machine learning and behavioral analysis, provide this capacity for continuous and adaptive analysis, helping to identify systemic deviations early before they materialize into serious incidents.

The Colonial Pipeline incident falls into the category of operational dysfunctions amplified by human and cyber factors, demonstrating how such vulnerabilities can escalate rapidly in the absence of advanced detection and early response mechanisms. Subsequent analyses of the incident identify gaps in identifying abnormal behaviors in control and monitoring systems, which led to preventive shutdowns of operations and significant economic disruption. This case highlights the need to integrate sophisticated algorithmic tools to complement traditional control and increase the resilience of critical infrastructures to digital and operational risks.

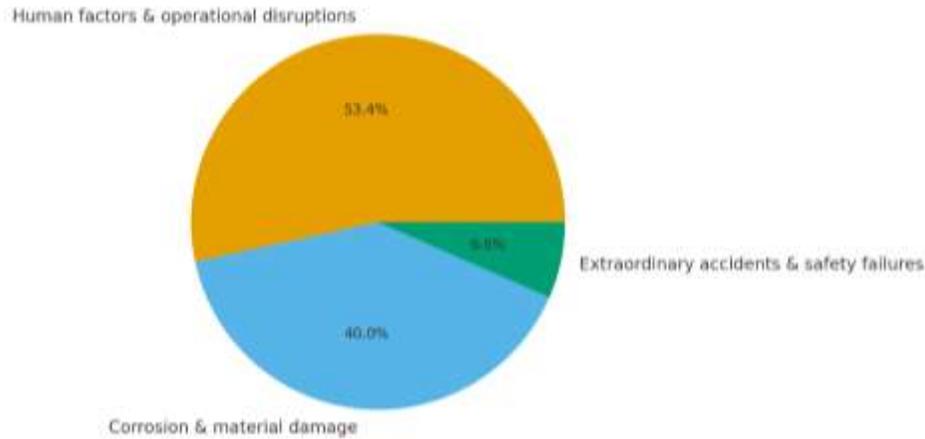
## **2. Literature review**

The literature highlights the transition from traditional auditing, based on sampling and ex-post controls, to continuous surveillance models assisted by artificial intelligence. Continuous learning techniques allow the detection of anomalies in the financial audit in real time, thus improving the accuracy and efficiency of the process. Anomaly detection algorithms have proven effective in identifying unusual financial behaviors, and AI helps reduce reaction time to cyber incidents (Baharom, 2025).

At the same time, the implementation of AI has significant limitations, including the lack of data standardization, the risk of algorithmic bias, and the insufficiency of interdisciplinary skills (Ojewale et al., 2024). An emerging direction is the correlation of financial fraud with critical infrastructure vulnerabilities, which highlights the need for an integrated approach between the financial-accounting field, cybersecurity and public order (Binh, 2025).

A significant part of the risks, when it comes to accidents that occur at the level of pipeline infrastructures (see Figure no. 1), is not generated exclusively by physical defects of the infrastructure, as we would be tempted to say, but by processes, decisions and behaviors that are difficult to monitor by traditional methods.

Figure no. 1. Global distribution of accident causes in pipeline infrastructures, according to the literature



*Source: authors' personal creation*

The global distribution of accident causes in pipeline infrastructures highlights the predominance of human factors and operational dysfunctions, which account for more than half of all incidents analyzed, according to reports by regulatory institutions and international benchmarking studies (PHMSA, 2023). Material degradation and corrosion constitute the second major risk category, being consistently identified as critical structural factors in safety assessments of energy transmission networks (Okoh et al., 2021). In contrast, extraordinary events and major safety failures have a relatively low frequency, but are associated with a potential for disproportionate economic, social and environmental impacts (OECD, 2019).

The high share of human and operational factors supports the concept of "invisible fraud", in which dysfunctions are not immediately detectable by physical inspections or classic controls, but progressively manifest themselves through subtle deviations in systemic behavior (Hopkins, 2016). In this context, vigilant algorithms, capable of continuously analyzing operational and behavioral data, become essential for the early identification of these deviations and for preventing the escalation of latent risks (Dal Pozzolo et al., 2015).

The Colonial Pipeline incident falls into the category of operational dysfunctions amplified by human and cyber factors, demonstrating how such vulnerabilities can escalate rapidly in the absence of advanced detection and early response mechanisms (Department of Energy, 2021).

### **3. Research methodology**

The research adopts a qualitative and comparative approach, based on the analysis of the literature, institutional reports and relevant technical documentation in the field of critical infrastructures and cybersecurity. This methodological option is justified by the exploratory nature of the theme and the limited access to sensitive operational data specific to critical infrastructures.

The methodology includes a conceptual analysis of the role of artificial intelligence in anti-fraud control and operational risk oversight, with a focus on machine learning techniques, anomaly detection and automation of audit processes. The literature (KPMG, 2022) highlights the fact that traditional methods, based on fixed rules and ex-post controls, are insufficient to identify complex digital frauds, characterized by adaptivity and emerging behaviors.

The research uses a comparative analysis between organizations that implement AI-based solutions and those that use conventional detection methods. The comparison is made on the basis of synthetic indicators extracted from public reports and academic studies, in particular the time of detection of incidents and its variability. The use of graphical representations and exploratory statistical analyses is recommended in the literature when raw data are not available, but the aim is to identify systemically relevant patterns.

The 2021 Colonial Pipeline incident case study is being used to assess the practical applicability of artificial intelligence in the early detection of operational and cyber anomalies. Its analysis is based on the triangulation of official reports and post-incident analyses, which highlight the critical role of detection time and organizational decisions in escalating economic and societal impact.

The data used are aggregated and come from synthesis reports of regulatory institutions and the literature, which gives the study a descriptive and comparative character.

According to methodological studies (Yin, 2018), such approaches are appropriate in the early stages of research in an emerging field, allowing conceptual conclusions to be formulated and future research directions to be identified.

#### **4. Case Study: Ransomware Attack on Colonial Pipeline (2021)**

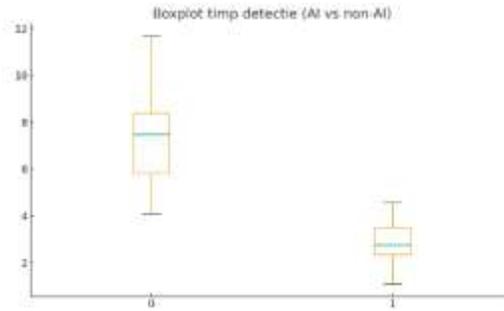
The case study analyzes the ransomware attack on Colonial Pipeline in 2021, considered a landmark event for the impact of digital fraud on critical infrastructures.

This attack is a relevant example of how digital fraud and cyber incidents can generate significant economic and social effects, going beyond the strictly technological sphere. Colonial Pipeline operates one of the most important energy infrastructures in the United States, providing fuel transportation for a significant portion of the East Coast.

The incident highlights the "invisible" nature of modern digital fraud, in which attackers exploit cyber vulnerabilities without initially producing obvious signals at the operational or financial level. In this context, the ability to detect early is becoming essential, and traditional control and audit mechanisms are proving insufficient to quickly identify abnormal behaviors. Thus, the Colonial Pipeline case directly aligns with the theme of the paper, illustrating the need for "vigilant algorithms" capable of continuously monitoring critical systems and signaling deviations before they turn into economic or security crises.

To highlight the potential of artificial intelligence in reducing reaction time to such incidents, this analysis uses an illustrative comparison between the detection times of organizations implementing AI-assisted solutions and those of organizations that rely on traditional methods. The boxplot presented in Figure no. 2 highlights clear differences between the two categories. The non-AI group exhibits longer detection times and a high dispersion of values, suggesting delayed and inconsistent reactions, similar to the scenario recorded in the case of Colonial Pipeline. In contrast, organizations that use artificial intelligence in operational monitoring have significantly lower median values and low variability, indicating a higher ability to identify anomalies early.

Figure no. 2. Comparing incident detection times in organizations using AI solutions versus non-AI organizations



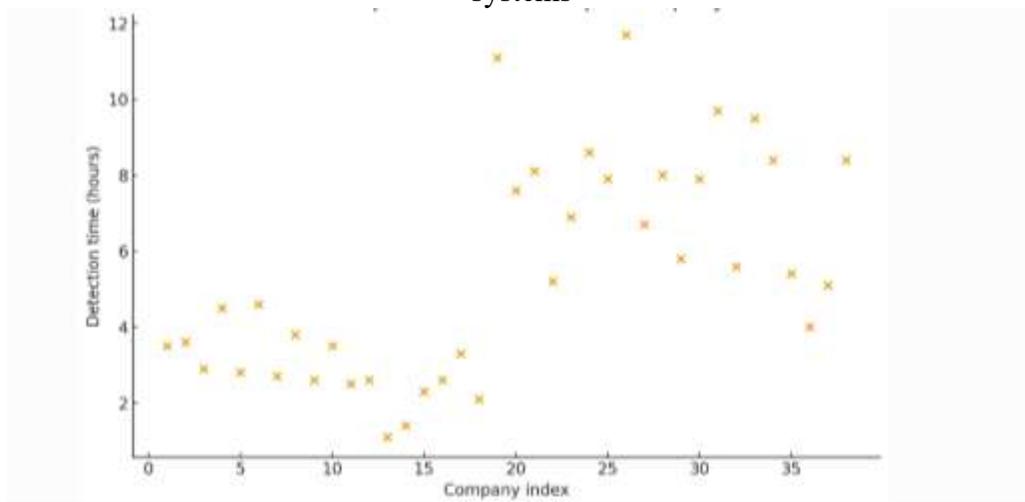
Source: authors' personal creation

In relation to the Colonial Pipeline incident, these results suggest that the implementation of anomaly-based detection algorithms could have contributed to faster reporting of the compromise, allowing the incident to be isolated at an early stage and limiting the economic and operational impact. Although the analysis does not allow the formulation of a direct causal relationship, due to the lack of access to internal operational data, the correlation highlights the potential role of artificial intelligence as a preventive tool in protecting critical infrastructures.

The analysis suggests that the implementation of anomaly detection algorithms, integrated into operational monitoring systems, could have signaled unusual behavior at an early stage, limiting the extent of the attack and economic damage.

The scatter plot in Figure no. 3 highlights a clear separation between two distinct clusters of companies, corresponding to the level of adoption of artificial intelligence in incident monitoring and detection processes. The top 20 entities analyzed, which use AI-based systems, have significantly shorter detection times, concentrated in a narrow range with low variability. In contrast, companies that have not implemented AI solutions have longer, dispersed detection times and are characterized by increased volatility.

Figure no. 3. Clustering incident detection times in companies with and without AI monitoring systems



Source: authors' personal creation

This visual separation suggests that there is a systematic effect of the use of artificial intelligence on organizational responsiveness. From a methodological point of view, the observed clustering confirms the results obtained by the inferential statistical analysis (t-test/ANOVA),

indicating that the differences between the two groups are not random, but associated with the technological structure of the surveillance systems used.

The authors interpret this distribution as empirical evidence of the role of artificial intelligence in reducing the "window of invisibility" of incidents. Anomaly-based detection algorithms make it possible to identify subtle deviations in operational behavior before they are perceived by traditional control mechanisms, based on reactive alerts or periodic inspections. Thus, artificial intelligence not only accelerates the detection process, but also contributes to standardizing and stabilizing security performance at the organizational level.

In the context of the Colonial Pipeline case study, these results take on additional strategic relevance. The 2021 incident demonstrated that long detection times can lead to disproportionate defensive decisions, such as a complete shutdown of operations, with far-reaching economic and social effects. From this perspective, the distribution observed in the case of non-AI companies reflects a similar risk profile, in which the lack of predictive mechanisms increases the probability of escalation of minor incidents in systemic crises.

In the authors' opinion, the existence of the two distinct clusters supports the idea that artificial intelligence functions as a structural differentiator of organizational resilience. Companies using AI are not only reacting faster, but operating under a regime of continuous surveillance, reducing reliance on late human intervention. This is essential for critical infrastructures, where reaction time is a determining factor in protecting economic and national security.

The case study confirms the relevance of AI as a preventive tool and the fact that digital fraud can no longer be treated exclusively as IT incidents, but must be addressed as systemic risks with economic and national security implications. In this sense, artificial intelligence is not just a technological solution, but a strategic component of modern anti-fraud control, capable of transforming reactive supervision into a proactive mechanism to protect the public interest.

## **5. Discussions and interpretations**

The analysis of the Colonial Pipeline case study highlights that the major impact of the incident was not generated solely by the sophistication of the ransomware attack, but by the delay in detection and the lack of proactive surveillance mechanisms. From this perspective, the authors believe that the incident can be interpreted as a failure of continuous monitoring, rather than as a simple isolated cyber incident. This interpretation supports the central idea of the paper that modern digital frauds are often "invisible" in the early stages, manifesting themselves only when the effects become systemic.

Comparative results on detection times suggest that artificial intelligence can significantly reduce the window of time in which an incident goes undetected. From the authors' point of view, this capacity is essential in critical infrastructures, where late decisions can lead to costly preventive shutdowns, as happened in the case of Colonial Pipeline. It can be appreciated that the implementation of anomaly-based detection algorithms would have allowed a faster segmentation of the affected systems, reducing the need for total interruption of operations.

The overall distribution of the causes of accidents indicates a high share of human and operational factors, which, in the authors' view, reflects the limits of traditional controls and procedures based solely on compliance. These results suggest that a significant part of the risk is associated with deviant behaviors, configuration errors and organizational decisions, difficult to capture through periodic auditing. Artificial intelligence offers the advantage of continuous

monitoring and automatic correlation of seemingly insignificant signals, thus turning latent risks into actionable indicators.

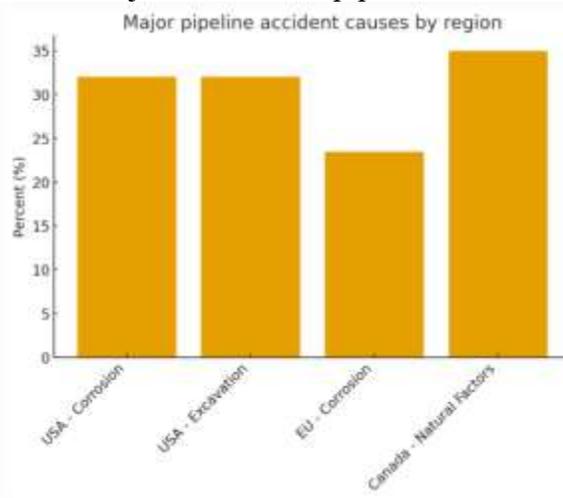
The analysis of regional differences in the causes of accidents supports the idea that AI-based solutions need to be adapted to the specific context of each infrastructure. In the case of the United States, where network complexity and operational interdependencies are high, the authors believe that AI should be integrated not only into cybersecurity, but also into operational management and strategic decision systems. In this regard, the Colonial Pipeline case highlights the need for a holistic approach, in which financial, operational and security data are analyzed in a unified framework.

From a personal perspective, the authors assess that one of the main obstacles in the widespread adoption of artificial intelligence in anti-fraud control is the lack of specialists with interdisciplinary skills. The training of "hybrid" experts, capable of simultaneously understanding financial and accounting mechanisms, IT infrastructures and security implications, is essential for really harnessing the potential of AI. In the absence of this expertise, algorithms risk being used superficially or exclusively as reactive tools.

Based on the results obtained, the authors suggest that organizations managing critical infrastructures adopt a gradual strategy for implementing artificial intelligence, starting with anomaly detection solutions integrated into existing systems and continuing with the development of advanced predictive models. In parallel, there is a need to strengthen the data governance framework and inter-institutional cooperation so that the use of AI is aligned with both economic and public security objectives.

The analysis of the major causes of accidents in pipeline infrastructure (see Figure 4) reveals significant differences between regions. In the United States, corrosion and excavation activities are the main sources of risk, reflecting operational complexity and infrastructure density. In Europe, corrosion remains the dominant factor, pointing to challenges related to the age of infrastructure and operating conditions. In Canada, natural factors are the main cause of major incidents, highlighting the influence of climatic and geographical conditions. These differences suggest that systemic risks are deeply dependent on the regional and operational context.

Figure no. 4. Main causes of major accidents in pipeline infrastructures, differentiated by region



Source: PHMSA, CONCAWE and TSB databases

The Colonial Pipeline incident is part of the typology of risks specific to infrastructures in the United States, where the combination of corrosion, excavation activities and cyber vulnerabilities can amplify the impact of a digital attack. In this context, the adoption of artificial intelligence for continuous monitoring becomes relevant not only as a technological measure, but as a response tailored to regional operational realities.

The results obtained support the idea that artificial intelligence can significantly strengthen anti-fraud mechanisms, but its effectiveness is conditioned by organizational and institutional factors. The lack of access to detailed operational data, methodological differences in reporting and the absence of unitary regulations limit the immediate applicability of predictive models.

In addition, it cannot be generalized that the introduction of AI automatically leads to risk reduction, as success depends on the digital maturity of organizations, the calibration of algorithms and data governance. The discussion highlights the need to train specialists with hybrid skills and inter-institutional cooperation to really harness the potential of AI.

## **6. Conclusions**

Through this paper, the authors aimed to carry out an analysis of the role of artificial intelligence in the prevention and detection of complex economic frauds, in a context marked by accelerated digitalization, interconnection of critical infrastructures and intensification of cyber risks. Starting from the assumption that traditional methods of financial control and auditing are insufficient for the early identification of modern fraud, the study demonstrated that artificial intelligence is an essential tool for increasing the vigilance of economic and security systems.

The research question focused on the extent to which artificial intelligence can contribute to reducing economic risks and strengthening national security through the early detection of abnormal behaviour and invisible threats. Theoretical and empirical analysis indicate that AI has a significant impact on detection time and institutional responsiveness, confirming the hypothesis. The comparison of AI versus non-AI scenarios highlights a substantial reduction in the interval for identifying incidents, which is critical in limiting the propagation of economic and operational effects.

The Colonial Pipeline case study concretely illustrated the consequences of late detection in a critical infrastructure, where a seemingly localized cyber incident generated major disruptions nationwide. The authors believe that this case reflects the typology of "invisible fraud", in which the vulnerabilities are not necessarily technical in the strict sense, but result from the interaction between human factors, organizational decisions and the lack of advanced mechanisms for continuous monitoring. In this sense, anomaly-based detection algorithms could have played a key role in the early identification of behavioral deviations, limiting the escalation of the incident.

At the same time, the results obtained confirm that artificial intelligence cannot be considered an autonomous or universally valid solution. Its effectiveness is conditioned by the quality and granularity of the available data, the appropriate calibration of models, the level of digital maturity of organizations and the existence of a clear governance framework. In the absence of these elements, the use of AI can generate limited results, false alarms or even additional risks, through over-reliance on insufficiently validated systems.

From this perspective, the authors emphasize the need for an integrated approach, in which artificial intelligence is combined with human expertise, coherent regulations and inter-institutional cooperation. The concept of "vigilant algorithms", proposed in the title of the paper, goes beyond the technological dimension and reflects a broader institutional responsibility: that of using digital tools in a transparent, ethical and public-interest way.

That said, the future of fraud control and protecting the economy does not depend solely on technological progress, but on society's ability to integrate artificial intelligence into a robust governance ecosystem. Artificial intelligence acts as a catalyst for transformation, not as a substitute for human decision, and the balance between innovation, responsibility and security will determine the real effectiveness of these solutions in strengthening economic and national security.

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