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FROM COMPLIANCE TO DATA-DRIVEN GOVERNANCE: THE IMPACT OF DIGITALIZATION ON TRANSPARENCY AND INTERNAL CONTROL IN PUBLIC AND PRIVATE CULTURAL INSTITUTIONS

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Abstract: *Digitalization and widespread access to information are redefining the way institutions exercise their internal control and financial reporting functions, generating new forms of digital governance. This paper proposes a conceptual framework for analysing the impact of digital reporting and monitoring tools on financial transparency and internal control architecture in cultural organizations, comparing the public model, governed by strict legal compliance, with the private model, oriented towards operational efficiency. Starting from a critical review of the literature on the digitization of the public sector (digital auditing, electronic reporting), open data as a transparency tool and the digitization of non-profit organizations, the paper builds an analytical model on three dimensions: the digitization of financial reporting, the digitization of internal control/auditing and the digitization of communication with funders and the public. The model is qualitatively illustrated by a double case study - a public cultural institution and a private cultural organization in Romania - and is accompanied by a proposed methodology for future empirical testing, based on documentary analysis and semi-structured interviews. The paper contributes to the emerging literature on the digital governance of the cultural sector and proposes recommendations for integrating data-driven reporting tools into the existing institutional framework, without compromising the rigor of legal compliance.*

Keywords*: digital governance; financial transparency; internal managerial control (SCIM); open data; institutional digitalization; Cultural sector*

JEL Classification*: M41, H83, O33, Z10*

1. Introduction

The knowledge society is characterised by an increasing interference between digital technologies, information flows, and institutional governance mechanisms. As information and communication technologies (ICTs) become embedded in the ordinary functioning of organisations, they no longer act as mere operational support but as constitutive elements of how governance itself is exercised, monitored, and communicated to stakeholders (Bertot et al., 2010). This shift is particularly visible in the public sector, where digitalization has been promoted as a vector for increasing transparency and accountability through the expansion of electronic reporting, open data portals, and automated audit tools (Otia & Bracci, 2022; Agostino et al., 2022). The underlying assumption-rooted in the broader New Public Management reform agenda (Hood, 1991)-is that technology-enabled reporting reduces information asymmetries between public managers and the citizens, auditors, and oversight bodies to whom they are accountable, thereby narrowing the "principal-agent gap" long described in agency theory (Jensen & Meckling, 1976).

The empirical evidence, however, suggests that this relationship is neither automatic nor uniform. Open government data and e-government platforms can indeed function as anti-corruption and transparency tools (Bertot et al., 2010; Saxena & Muhammad, 2018), but their effectiveness depends on how the data are structured, disclosed, and actually used by external audiences-a conditionality captured by the "window theory" of open data–enabled transparency, whereby data must be not only released but also rendered visible and interpretable for accountability effects to materialise (Matheus & Janssen, 2020). Likewise, the digitalization of accounting information systems in the public sector has been shown to improve the quality and reliability of financial reporting, but the magnitude of this effect varies considerably with institutional capacity and the maturity of internal control environments, especially in developing and transition economies (Hamdy et al., 2025). Digital transformation of public sector auditing itself-through automation, robotic process automation, and data analytics-has been described as reshaping the auditor's role and the scope of what can be audited, again conditional on the technical and organisational readiness of the audited entities (Otia & Bracci, 2022; Agostino et al., 2022).

In parallel, private and non-profit organisations face their own digital adoption challenges, generated by financial, cultural, and institutional capacity constraints (Radu et al., 2025). Unlike public administrations, where digitalization is frequently driven-or mandated-by regulatory and oversight requirements, non-profit and market-oriented organisations tend to adopt digital tools more unevenly: constrained by limited budgets, thin technical expertise, and organisational cultures historically centred on mission delivery rather than technological investment (Radu et al., 2025). Where public sector digitalization is often imposed as a compliance mechanism, non-profit digitalization is more often negotiated against competing operational priorities, which helps explain why otherwise comparable organisations can display strikingly different digital trajectories depending on their legal and financial architecture.

The Romanian cultural sector offers a fertile ground for observing these dynamics(Gurgu et. al., 2024), as it brings together, under the same functional label, entities with fundamentally different legal natures- public cultural institutions, subject to a strict regime of legal compliance and internal managerial control (SCIM), and private or non-profit organisations, oriented towards operational flexibility and market efficiency(Wnuczak and Osiichuk,2020). This duality maps closely onto the agency-theoretic distinction between hierarchical, rule-bound control structures-designed to constrain managerial discretion and align it with public accountability obligations (Jensen & Meckling, 1976; Hood, 1991)-and more flexible governance arrangements, in which oversight is exercised through market signals, donor relationships, and reputational mechanisms rather than statutory internal control frameworks. The coexistence of these two logics within a single sectoral field raises the question of whether digitalization acts as a converging or a diverging force: does it homogenise practices across legal forms, or does it instead amplify pre-existing structural differences by being absorbed differently into each governance logic?

Previous work on the governance of the cultural sector has mainly analysed the structural differences between these two models-funding sources, budgetary rigidity, internal control architecture-without explicitly examining the role of digitalisation as a variable of institutional transformation. The literatures on public sector digital transformation (Otia & Bracci, 2022; Agostino et al., 2022; Hamdy et al., 2025), open data-enabled transparency (Bertot et al., 2010; Matheus & Janssen, 2020; Saxena & Muhammad, 2018), and non-profit digital adoption (Radu et al., 2025) have developed largely in parallel, rarely brought into direct comparison within a single national sector, and almost never applied specifically to cultural governance. This leaves a gap at the intersection of digitalization, internal control, and financial transparency-precisely the space in which the Romanian cultural sector's dual institutional structure makes the comparison analytically tractable.

This paper aims to fill this gap, through a central research question: to what extent does the adoption of digital reporting and monitoring tools transform the architecture of internal control and the level of financial transparency of cultural organisations, depending on their legal nature?

The objectives of the paper are: (1) to critically review the literature on the digitization of public and private governance; (2) to build a conceptual framework for assessing the digital maturity of cultural organisations along three dimensions-financial reporting, internal control/audit, and public communication; (3) to qualitatively illustrate the proposed framework through a double case study; and (4) to propose a methodology for the empirical testing of the model in further research.

2. Literature review

2.1. Theoretical foundations: agency theory and the new public management

The analysis of organizational governance is traditionally based on two complementary theoretical bodies. Agency theory (Jensen & Meckling, 1976) explains how dependence on budget funding imposes external control mechanisms designed to reduce informational asymmetry between the principal (funder) and the agent (cultural entity). The New Public Management paradigm (Hood, 1991) argues, in turn, that the introduction of private-type managerial tools - including digital performance monitoring tools - can reduce the bureaucratic rigidity of public institutions, without eliminating the need for legal compliance.

2.2. Digitalisation of internal control and public audit

Recent literature on the digitalisation of the public sector documents a gradual transformation of internal audit and control practices. Otia and Bracci (2022) show, based on a comparative analysis of SAIs in several countries, that most of them recognise the need for digital transformation, but face a gap between strategy and the resources actually available. Agostino et al. (2022) emphasize, in a systematic review of the literature, that the digitization of public accounting and auditing is not a linear process, but one mediated by organizational, institutional and political factors. In a context similar to the Romanian one, Hamdy et al. (2025) find, in the case of some countries in the MENA region, a negative effect, at least in the short term, of digitization on the quality of government accounting information systems - a result that nuances technological optimism and suggests that digitization does not guarantee, by itself, an increase in the quality of internal control.

2.3. Open data and financial transparency

A second line of literature investigates the role of open government data as a tool for transparency. Bertot et al. (2010) were among the first to argue that information and communication technologies, along with social networks, can contribute to an institutional culture of transparency and the reduction of corruption. Matheus and Janssen (2020), through a systematic review of more than 70 studies, propose the "window theory", according to which the opening of data does not automatically produce transparency, but depends on a set of more than 40 contextual determinants - from the quality and interpretability of the data, to the ability of the public to use it. Saxena and Muhammad (2018), analysing the case of Pakistan, empirically confirm that open data initiatives increase the perception of public accountability, but are limited by the lack of coherent institutional data publishing policies.

2.4. Digitalisation of cultural and non-profit organisations

Unlike the public sector, the literature on the digitization of non-profit and cultural organizations is less developed. Radu et al. (2025), through a case study in a Swedish non-profit organization, identify specific barriers to digital transformation in this type of organization - limited resources, multiplicity and sometimes conflict between the objectives of the various funders (grants, sponsorships, donations) and the absence of a coherent digital strategy. These findings suggest that while private and nonprofit organizations theoretically have greater operational flexibility, digital adoption is not automatically faster or deeper than in the public sector(Jackson and Allen, 2024).

In summary, the literature suggests a structural tension: digitalization is promoted, both in the public and private sectors, as a tool for transparency and efficiency, but its trajectory and effects are strongly conditioned by the legal nature, available resources and organizational culture of the entity. This tension constitutes the starting point of the conceptual framework proposed in the next section(Figure no.1).

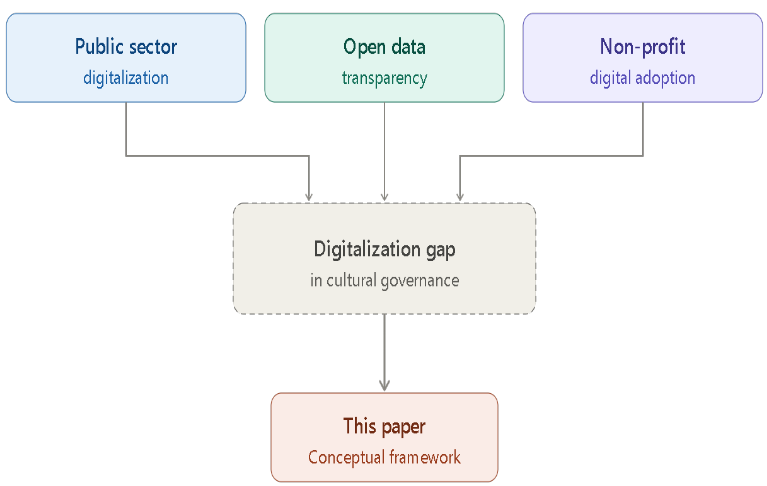

Figure 1 - Research gap at the intersection of public sector, open data, and non-profit digitalization literatures

Source : own source

3. Proposed conceptual framework

Based on the reviewed literature, we propose an analytical model of the digital maturity of cultural organizations, structured on three complementary dimensions:

- Digitalisation of financial reporting - the extent to which financial statements, budgets and performance indicators are available in structured electronic format (not just static PDF) and possibly published as open data;
- Digitalisation of internal control and auditing - the use of automated tools for monitoring risks, cash flows or procedural compliance, complementary to the Internal Managerial Control System (SCIM) or external financial audit;
- Digitization of institutional communication - the extent to which the organization uses digital channels (website, social networks, open data portals) to proactively communicate with funders, beneficiaries and the general public.

The central hypothesis of the model is that the positioning of a cultural organization on these three dimensions is not random but is systematically influenced by its legal nature. Public institutions tend to invest digitally mainly in the dimension of internal control/audit, in response to the pressure of legal compliance (compliance-driven digitalization), while private and non-profit organizations tend to invest digitally, especially in the dimension of institutional communication, as a tool to attract funding (performance-driven digitalization). The dimension of digital financial reporting remains, in both cases, the least developed - an assumption derived from the findings of Hamdy et al. (2025) on the gap between digitization and the effective quality of accounting IT systems.

This central hypothesis can be disaggregated into three sub-hypotheses, corresponding to the three dimensions of the model(Figure no. 2):

- **H1:** public cultural institutions show higher digital maturity than private ones on the internal control/audit dimension, driven by legal compliance pressure;
- **H2:** private and non-profit cultural organizations show higher digital maturity than public ones on the institutional communication dimension, driven by the need to attract funding;
- **H3:** the digitalisation of financial reporting remains the least developed dimension in both public and private cultural organizations, regardless of legal nature.

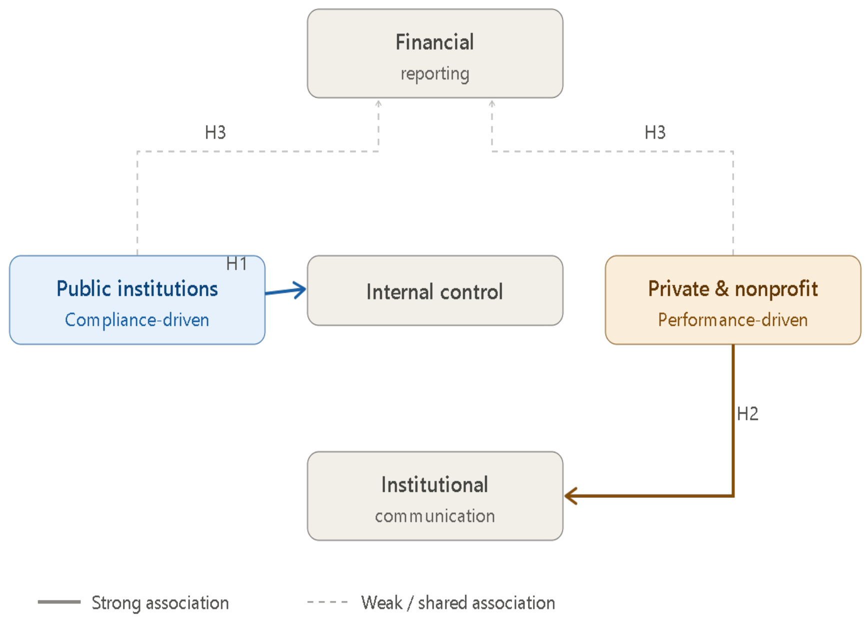

Figure no. 2 -**Conceptual Framework of Institutional Governance Dynamics and Hypotheses**
Note: Solid arrows indicate the hypothesized strong association (H1, H2); dashed arrows indicate the hypothesized weak association (H3).
Source: *own source*

4. Illustrative application and proposed methodology

To illustrate the applicability of the conceptual framework, we propose its empirical testing through a double case study, comparing a public cultural institution with a private cultural organization in Romania - extending, on the dimension of digitalization, the previous comparative research on the conformity and performance of these two models of cultural governance. The proposed methodology is a mixed one(Figure no 3), based on:

- documentary analysis of activity reports, institutional websites and electronic reporting platforms, for the evaluation of the three dimensions of the model(Table no.1, Figure no. 4);
- semi-structured interviews with financial and internal control managers, to capture the barriers and motivations behind digitization decisions;
- building a composite digital maturity index, by aggregating binary or ordinal indicators on each of the three dimensions (e.g. the existence of an open data portal, the frequency of updating online financial reports, the use of digital risk monitoring tools).

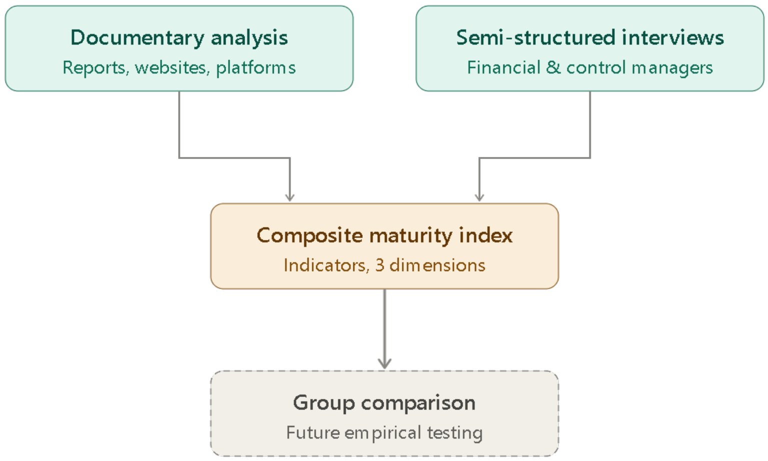

Figure no. 3. Proposed mixed-methods approach for empirical testing of the conceptual framework
Source: own source

Dimension	**Public cultural institution (illustrative)**	**Private cultural organization (illustrative)**
Financial reporting	Static annual reports (PDF), not structured for reuse	Similarly limited; financial data rarely published in reusable format
Internal control/audit	Formalised SCIM procedures; digitalisation driven by compliance requirements	Lighter internal control structures, oriented towards operational efficiency
Institutional communication	Limited use of digital channels beyond mandatory publication requirements	Intensive use of digital communication (website, social media) to attract funders and audiences

Table 1. Illustrative comparison of the two case studies across the three dimensions of digital maturity (qualitative, non-validated observations).

While Table 1 presents the qualitative comparison in narrative form, Figure no. 4 renders the same illustrative observations as a visual matrix, following the logic of window theory (Matheus & Janssen, 2020), which holds that data must be rendered visible and interpretable, not merely published, for transparency effects to materialise. The heatmap format is intended to make the asymmetry between the two governance models immediately legible, complementing rather than duplicating the textual detail retained in Table 1. This dual representation mirrors the broader argument of the paper: that the mode of presentation of information - not only its availability - shapes its practical accountability value (Bertot et al., 2010; Saxena & Muhammad, 2018).

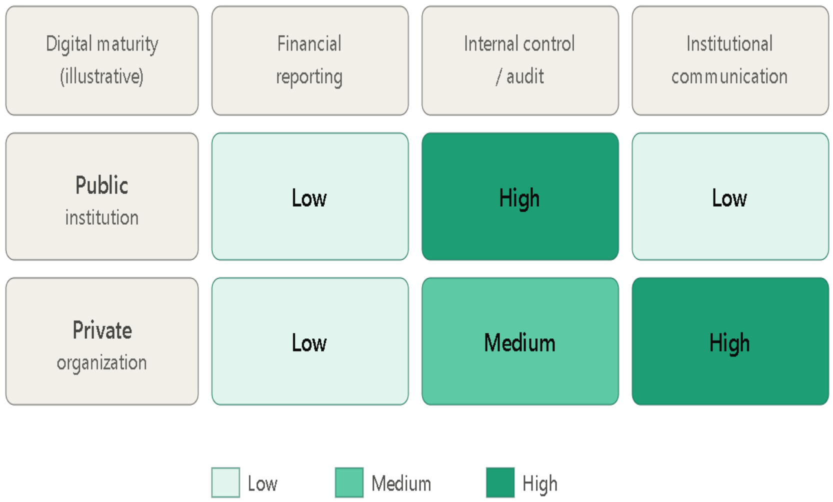

Figure no.4 - Illustrative digital maturity matrix, public versus private cultural organizations

Source : own source

Note: Qualitative, non-validated observations based on illustrative case review; see Section 4 for methodological caveats.

At this conceptual stage, we do not present quantitative results, as the collection and validation of empirical data is the next stage of research. However, the qualitative observations available from the literature on the Romanian public sector suggest that public cultural institutions currently operate in a predominantly documentary reporting regime (annual reports in PDF format, without structuring for reuse), while private organisations in the cultural field - especially those with international activity, such as film festivals - make more intensive use of digital communication channels, but without a corresponding digitization of internal financial reporting. This asymmetry is consistent, at a qualitative level, with the hypothesis proposed in Section 3, and provides a starting point for the operationalisation of the indicators in the next empirical stage, though it should be treated as a preliminary working assumption rather than a confirmed finding, pending the empirical testing described below.

5. Discussions

The proposed conceptual framework has both theoretical and practical implications. Theoretically, the model integrates the literature on the digitization of the public sector (Otia & Bracci, 2022; Agostino et al., 2022) with the one on non-profit organizations (Radu et al., 2025), offering a common analysis tool for a sector - the cultural one - that combines both institutional logics. From a practical point of view, the model suggests that policies for the digitization of cultural institutions should not be designed uniformly, but differentiated, depending on the legal nature and the type of dominant institutional pressure (legal compliance, in the case of public institutions; efficiency and attraction of funding, in the case of private entities).

An additional implication concerns the relationship between digitalization and transparency. As window theory (Matheus & Janssen, 2020) shows, the mere publication of data does not guarantee effective transparency; There is a need for an institutional infrastructure capable of supporting the interpretation and re-use of this data by funders, auditors and the public. In this regard, a recommendation that stems from the proposed framework is that public cultural institutions should not limit themselves to the digitization of reports intended for legal compliance, but should also invest in open, reusable data formats, similar to those promoted by Bertot et al. (2010) and Saxena and Muhammad (2018) in the broader context of e-government.

6. Conclusions

The paper proposes a conceptual framework for analysing the impact of digitalization on financial transparency and internal control in public and private cultural organizations, structured on three dimensions: financial reporting, internal control/auditing and institutional communication. The model suggests that digitization trajectories differ systematically depending on the legal nature of the organization, with public institutions being predominantly oriented towards the digitization of compliance, and private entities towards the digitization of communication. The main contribution of the paper is the integration of relatively separate bodies of literature - the digitization of the public sector, transparency through open data and the digitization of non-profit organizations - into a unitary framework, applicable to the cultural sector.

Future research should empirically test this framework, through a wider sample of public and private cultural institutions, using the composite digital maturity index proposed in section 4, as well as statistical methods of comparing groups. An additional direction of research concerns the potential role of artificial intelligence in automating internal control and public auditing - a natural extension of the already existing literature on the digitization of auditing (Otia & Bracci, 2022).

Beyond its conceptual contribution, the paper also illustrates the value of pairing narrative and visual representations of qualitative data, in line with the window theory argument that interpretability, not mere availability, drives the practical transparency effects of reported information (Matheus & Janssen, 2020). Future empirical work applying the composite digital maturity index could adopt a similar dual-representation approach, to ensure that statistical findings remain accessible to both academic and practitioner audiences.

7. Limits of research

The present work has a predominantly conceptual and exploratory character; The proposed framework has not, at this stage, been statistically tested on a sample of institutions.

The qualitative illustration in Section 4 is based on general observations from the literature and knowledge of the sector, not on systematically collected data, so conclusions on the asymmetry between the digitalisation of compliance and the digitalisation of communication should be treated as working assumptions, not as confirmed results. The proposed model also focuses on three dimensions of digitalisation but does not exhaust the complexity of the phenomenon - issues such as the cybersecurity of financial data or the digital skills of staff remain outside the current scope of analysis and constitute directions for the future expansion of the conceptual framework.

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