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INTERRELATIONSHIPS BETWEEN GOVERNANCE, RISKS, AND INTEGRITY IN THE FEDERAL PUBLIC ADMINISTRATION

Inter-relações entre governança, riscos e integridade na administração pública federal

Interrelaciones entre gobernanza, riesgos e integridad en la Administración pública federal

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ABSTRACT

This study empirically tests the interrelationships among governance, risk management, and public integrity in Brazil's federal public administration. Moving beyond purely normative discussions, the research adopts a quantitative, cross-sectional design and applies structural equation modeling (SEM) to secondary data from 230 federal organizations reported in the iESGo 2024 assessment (Federal Court of Accounts, TCU). A structured literature review (2000–2024) supported the development of competing theoretical propositions, which were assessed through alternative model comparisons given identification and stability constraints. The findings indicate statistically significant associations among the constructs, highlighting integrity as a transversal capability linked to governance maturity and to systematic risk management practices. Sensitivity analyses support the robustness of the results. Overall, the evidence suggests that the integration of integrity, governance, and risk management is asymmetric rather than uniformly bidirectional, reinforcing the relevance of ethical leadership, transparency mechanisms, and digital technologies for strengthening institutional resilience and public trust. The study contributes a validated measurement framework to diagnose integration gaps and inform compliance-oriented policies and managerial decision-making in the federal public sector.

Keywords: risk management, public governance, public integrity, structural equation modeling, institutional resilience.

RESUMO

Este estudo submete ao teste empírico as inter-relações entre governança, gestão de riscos e integridade no contexto da administração pública federal. Diferenciando-se de abordagens puramente normativas, a pesquisa adota um delineamento quantitativo-descritivo, utilizando a modelagem de equações estruturais baseada em dados secundários de 230 órgãos federais (Relatório iESGo 2024/TCU). O percurso metodológico incluiu uma revisão estruturada da literatura para o estabelecimento de hipóteses teóricas concorrentes, as quais foram confrontadas via comparação de modelos alternativos. Os resultados revelam associações estatisticamente significativas entre os constructos, com destaque para a integridade como eixo transversal que se correlaciona à

maturidade da governança e à eficácia dos controles internos. A análise de sensibilidade confirmou a estabilidade do modelo, evidenciando que a convergência entre liderança ética e transparência digital é determinante para a resiliência institucional. Como principal contribuição, o trabalho valida um modelo de mensuração que permite diagnosticar assimetrias na integração dessas capacidades, oferecendo subsídios pragmáticos para a otimização de políticas de conformidade e para o fortalecimento da legitimidade das instituições públicas diante dos desafios de inovação e controle.
Palavras-chave: gestão de riscos, governança pública, integridade pública, modelagem de equações estruturais, resiliência institucional.

RESUMEN
Este estudio evalúa empíricamente las interrelaciones entre gobernanza, gestión de riesgos e integridad en la Administración pública federal de Brasil. A diferencia de enfoques predominantemente normativos, la investigación adopta un diseño cuantitativo y transversal y aplica modelos de ecuaciones estructurales (MEE) a datos secundarios de 230 organismos federales, provenientes del informe iESGo 2024 (Tribunal de Cuentas de la Unión). Una revisión estructurada de la literatura (2000–2024) sustentó la formulación de hipótesis teóricas divergentes, evaluadas mediante la comparación de modelos alternativos ante restricciones de identificación y estabilidad. Los resultados muestran asociaciones estadísticamente significativas entre los constructos y destacan la integridad como una capacidad transversal que se correlaciona con la madurez de la gobernanza y la eficacia de los controles internos. Los análisis de sensibilidad respaldan la estabilidad del modelo. En conjunto, la evidencia sugiere que la integración entre liderazgo ético y transparencia digital es determinante para la resiliencia institucional. El estudio valida un modelo de medición para diagnosticar brechas de integración de esas capacidades, optimizar las políticas de cumplimiento y reforzar la legitimidad de las instituciones públicas ante los retos de innovación y control.
Palabras clave: gestión de riesgos, gobernanza pública, integridad pública, modelado de ecuaciones estructurales, resiliencia institucional.

INTRODUCTON

The strengthening of public institutions has been widely debated amid growing demands for integrity, performance, and trust in the public sector (Cruz & Viana, 2019; Souza & Araújo, 2023). Reforms oriented toward transparency, social accountability, and interorganizational coordination have reinforced the need to improve governance practices that integrate different dimensions of public administration (Bresser-Pereira, 2007; Barbosa & Figueiredo, 2022), in line with the principles of New Public Governance (Osborne, 2006).

Among these dimensions, risk management has gained prominence as a strategic instrument for decision-making support and institutional compliance (Carvalho & Cunha, 2022; Mendes & Oliveira, 2021). Its adoption has been associated with enhancing organizational capacity to address uncertainties and strengthen control mechanisms, particularly in complex institutional contexts (Organisation for Economic Co-operation and Development [OECD], 2018; Power, 2007).

Public governance, in turn, is addressed in the literature as an institutional arrangement aimed at coordination, strategic alignment, and *accountability*, thereby contributing to the legitimacy of

public decisions (Christensen et al., 2020; Prado et al., 2020; Rodrigues, 2026). Studies indicate that governance, risk management, and integrity practices are often viewed as interdependent dimensions within the normative and analytical frameworks of contemporary public administration (Grin & Abrucio, 2021; Oliveira et al., 2024; Oliveira et al., 2025; Federal Court of Accounts [TCU], 2017).

Integrity has been discussed as an organizational value that promotes ethical standards, institutional legitimacy, and public trust (Amâncio et al., 2024; Bovens et al., 2014; Carlos et al., 2025), particularly in contexts with low levels of trust in public institutions (Oliveira et al., 2026; Paine, 1994).

Regarding the relationship between risk management and integrity, the literature often describes a potential interaction between these domains, suggesting that control instruments and ethical values may reinforce one another at both the normative and institutional levels (Bergue, 2022; Cirino et al., 2024; OECD, 2021). However, these propositions have received limited empirical testing, especially in specific national contexts (Cirino et al., 2024).

Despite international advances in governance, risk management, and integrity research (OECD, 2018; Transparency International, 2024), empirical studies that simultaneously test these relationships in the Brazilian public sector remain scarce. Although relevant analyses have examined governance, risk management, and integrity separately, investigations that empirically model their interrelationships using comparable institutional metrics are rare, particularly within the Brazilian Federal Executive Branch.

Given the growing demand for trust, control, and *accountability*, this study seeks to answer the following research question: what are the interrelationships among governance, risk management, and integrity in the Brazilian Federal Executive Branch? Data from the Integrated Governance and Public Management Index (iESGo), developed by the Federal Court of Accounts (TCU) and covering 230 federal organizations, provide a novel and representative basis for quantitative analyses in the Brazilian federal public administration.

This article does not replicate the study by Oliveira et al. (2025); rather, it extends it by broadening the empirical scope, deepening the operationalization of constructs, and using Structural Equation Modeling (SEM) to test alternative theoretical pathways among governance, risk management, and integrity.

The study offers three main contributions: (i) at the theoretical level, it advances the understanding of the interrelationships among governance, risk management, and integrity by proposing and validating an integrated model; (ii) at the methodological level, it applies *Structural Equation Modeling* (SEM) to secondary data; and (iii) at the practical level, it provides evidence-based insights to improve integrity strategies and governance practices in the public sector.

The article is organized into four further sections. The next section presents the theoretical framework and hypotheses, followed by the methodology, focusing on the structured literature review and SEM approach. The following section reports and discusses the empirical findings, and the final section offers concluding remarks and suggestions for future research.

THEORETICAL FRAMEWORK AND HYPOTHESES

The theoretical framework adopted in this study is grounded in the integrative perspective linking governance, risk management, and integrity as previously discussed by Oliveira et al. (2025). This perspective examines the conceptual, normative, and institutional foundations that connect these domains in the public sector. This article shifts the focus from the theoretical discussion of integration to the empirical operationalization of the relationships among these constructs by defining dimensions, indicators, and structural linkages amenable to statistical testing.

At the institutional level, the literature situates the integration of governance, risk management, and integrity within the context of administrative reforms and growing demands for accountability, marked by a transition from bureaucratic arrangements to models that combine collaboration, control, and ethical values (Denhardt & Denhardt, 2003; Grin & Abrucio, 2021; Hood, 1991; Osborne, 2006).

This evolution has stimulated risk prevention practices and the promotion of integrity, supported by recent regulatory frameworks and evidence on organizational ethical culture (Carlos et al., 2025; Oliveira et al., 2026). Risk management and integrity programs complement governance in contexts of greater complexity and vulnerability, strengthening institutional arrangements and accountability mechanisms (Huberts, 2014; Rodrigues, 2026). The synergy among these dimensions fosters more consistent, citizen-oriented decision-making processes (Oliveira et al., 2024), in line with OECD (2021) recommendations on ethical leadership and integrity-based organizational cultures.

Although governance, risk management, and integrity share normative and institutional foundations in the public sector, this study treats them as distinct analytical domains: governance (systems of direction, oversight, and accountability), risk management (the process of identifying and addressing uncertainties), and integrity (a system of values, norms, and conduct). Accordingly, the proposed relationships are conceived as interdependent structural associations and interpreted as complementary analytical linkages among institutional capacities: governance creates the conditions for institutionalizing risk management and integrity, while risk management and integrity enhance decision-making processes and accountability mechanisms, thereby reducing agency problems and increasing institutional predictability. Based on these arguments, the constructs and the theoretical rationale underpinning the hypotheses of the proposed model are presented below.

Public Governance and Risk Management

Public governance comprises the mechanisms and processes through which public organizations are directed, controlled, and evaluated, with a focus on *accountability* and institutional performance (Denhardt & Denhardt, 2003; Grin & Abrucio, 2021; Martínez et al., 2016; OECD, 2018). By establishing roles, decision-making processes, and monitoring mechanisms, governance creates organizational conditions that institutionalize risk management and position it as a decision-support tool rather than merely a technical procedure (Christensen et al., 2020; OECD, 2021; Federal Court of Accounts [TCU], 2017).

H1: Public governance is positively associated with risk management.

Conversely, risk management may contribute to governance by introducing a logic of anticipation and organizational learning and by providing structured information on vulnerabilities, trade-offs, and critical issues affecting legality, integrity, and efficiency (Choi et al., 2008; Power, 2007). When incorporated into decision-making routines, this information tends to enhance accountability and support evidence-based justification of administrative choices, thereby strengthening coordination and monitoring capacities (Bovens et al., 2014; Office of the Comptroller General [CGU], 2018).

H2: Risk management is positively associated with public governance.

Public Governance and Public Integrity

Public integrity is the alignment of institutional decisions and behaviors with ethical values, norms, and the public interest. It is often regarded as a constitutive dimension of good governance (Carr, 2023; OECD, 2020; Oliveira & Abib, 2023). In more structured governance environments with clear responsibilities, internal controls, and transparent decision-making, integrity programs and mechanisms tend to operate more effectively by reducing opportunities for opportunistic discretion and strengthening efforts to prevent, detect, and respond to misconduct (Martínez et al., 2016; Prado et al., 2020).

H3: Public governance is positively associated with public integrity.

Conversely, institutional integrity may strengthen governance by stabilizing expectations about conduct, reducing behavioral uncertainty, and sustaining public legitimacy through recognizable ethical standards and accountability mechanisms (Bovens et al., 2014; Paine, 1994). Instruments such as codes of conduct, whistleblowing channels, and integrity structures function as a normative coordination infrastructure, connecting public values to administrative practices and increasing predictability in decision-making processes (Filgueiras, 2011; OECD, 2021; Rodrigues, 2026).

H4: Public integrity is positively associated with public governance.

Risk Management and Public Integrity

Risk management supports integrity by structuring the identification and treatment of vulnerabilities associated with misconduct, fraud, noncompliance, and control failures, thereby contributing to the prevention of and response to events that may undermine trust and legality (Power, 2007; Prado et al., 2020). When integrated into management routines, this capability tends to generate evidence that supports more consistent decision-making and prioritizes preventive actions within integrity programs (Carlos et al., 2025; Cunha & Silva, 2020; Souza & Araújo, 2023).

H5: Risk management is positively associated with public integrity.

Conversely, integrity may influence risk management by raising standards of conduct, encouraging the reporting of irregularities, and reducing tolerance for misconduct, thereby creating organizational incentives for early detection and mitigation (Bovens et al., 2014; Oliveira et al., 2026). Environments

with a strong culture of integrity tend to foster adherence to controls and cooperation across organizational units, which may enhance the effectiveness of risk management processes and their incorporation into day-to-day administrative practices (Christensen et al., 2020; Vieira & Barreto, 2019).

H6: Public integrity is positively associated with risk management.

The hypotheses suggest a model in which governance, risk management, and integrity operate as interrelated institutional capacities. The opposing propositions were retained as competing theoretical alternatives, enabling an empirical assessment of whether integration occurs symmetrically or asymmetrically within the context under analysis. The hypotheses were tested by comparing alternative models, accounting for identification and stability constraints. This approach strengthens the robustness of the analysis and justifies the methodological strategy adopted. Table 1 presents the constructs, their conceptual definitions, theoretical references, and measurement items.

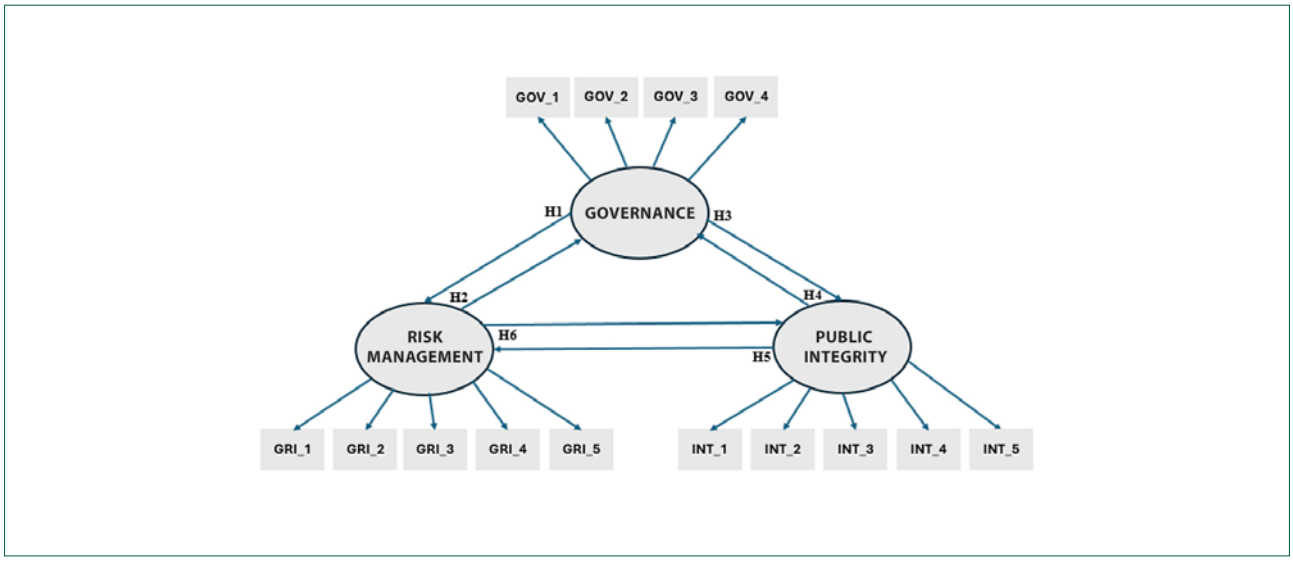
Table 1 – Sources and Definitions of the Constructs

CONSTRUCTS	DEFINITIONS	SOURCES	ITEMS
Public Governance	Leadership arrangements and strategic mechanisms that guide, monitor, and evaluate public management activities, promoting accountability, legitimacy, and effectiveness.	TCU (2017); OCDE (2018); Denhardt and Denhardt (2003); Grin and Abrucio (2021); Martínez et al. (2016); Bovens et al. (2014); Vieira and Barreto (2019).	GOV1, GOV2, GOV3 and GOV4.
Risk Management	A systematic process of identifying, assessing, treating, and monitoring risks that may affect institutional objectives.	CGU (2018); International Organization for Standardization (ISO, 2018); Power (2007); Oliveira and Abib (2023); Christensen et al. (2020); Santos and Serafim (2024).	GRI1, GRI2, GRI3, GRI4 and GRI5.
Public Integrity	The consistent alignment between ethical values, institutional norms, and the behavior of public officials, aimed at promoting the public interest.	OCDE (2018, 2020, 2021); Christensen et al. (2020); Carr (2023); Amâncio et al. (2024); Oliveira et al. (2024); Bergue (2022); Santos and Serafim (2024).	INT1, INT2, INT3, INT4 and INT5.

Source: Elaborated by the authors.

Based on these constructs, the study's theoretical model was developed and is presented in Figure 1, which illustrates the hypothesized relationships among the variables under investigation.

Figure 1 – Research Hypotheses (*Framework*)



Source: Elaborated by the authors.

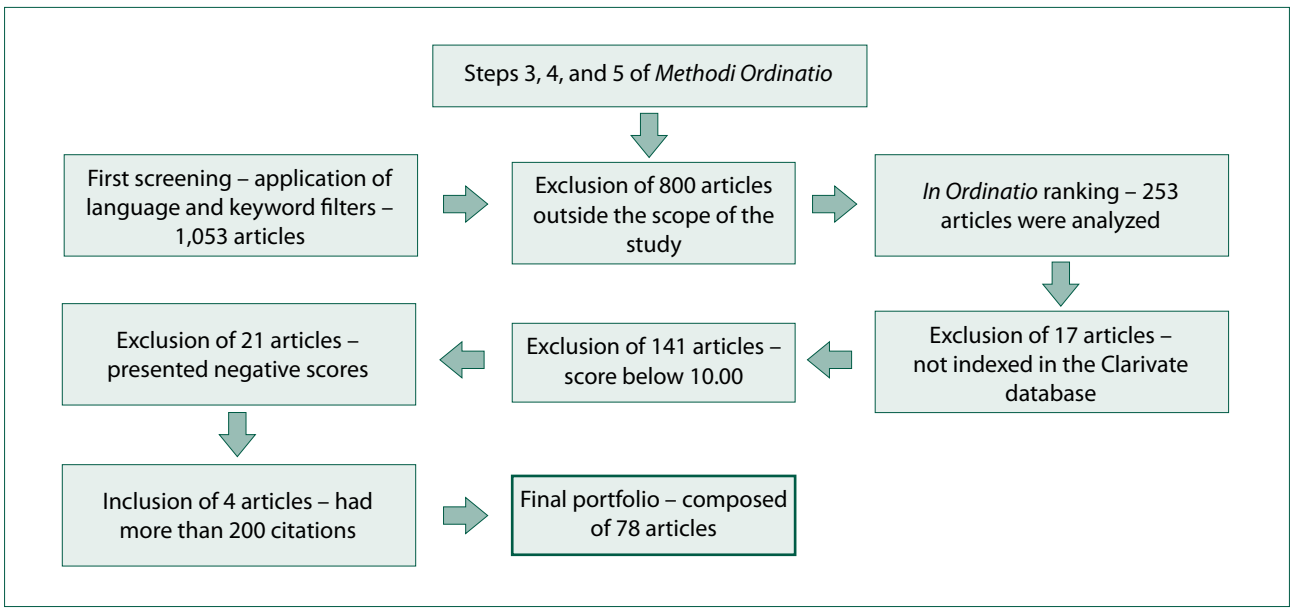
This figure synthesizes the study's theoretical framework, highlighting interactions among public governance, risk management, and integrity. The hypotheses specify directional structural relationships among the constructs and were tested as competing alternative specifications within the empirical model.

METHODOLOGY

Research Strategy and Design

A structured literature review was conducted covering 2000–2024 using the Scopus and Web of Science databases. Searches were performed across the title, abstract, and keyword fields using the following Boolean strategy: ("governance" OR "public governance") AND ("risk management" OR "risk and management" OR "management and risk") AND ("public integrity" OR "integrity and public"). This combination and variation of terms were adopted to mitigate potential losses arising from differences in translation and keyword ordering across records and indexing systems, thereby reducing the risk of inadvertently excluding relevant studies. Following deduplication and title/abstract screening, the portfolio was selected and prioritized using the Methodi Ordinatio approach, in accordance with the selection and prioritization workflow illustrated in Figure 2 (Pagani et al., 2023).

Figure 2 – Study Portfolio Selection and Prioritization Process (Methodi Ordinatio)



Source: Elaborated by the authors.

Given the scope and objectives of this stage, the structured literature review serves as the model's conceptual foundation, whereas the central contribution of this article lies in the empirical operationalization of the proposed model and in testing its relationships using iESGo/TCU data via Structural Equation Modeling (SEM). SEM was employed as a confirmatory technique, adopting the covariance-based Structural Equation Modeling approach (CB-SEM) to empirically test the hypothesized structural relationships among the constructs under investigation (Byrne, 2016; Hair et al., 2019; Maruyama, 1997). The choice of CB-SEM was motivated by its suitability for confirmatory theoretical models involving multiple latent variables and its capacity to assess overall model fit. Data preparation and tabulation were conducted in Microsoft Excel®, statistical analyses were performed in SPSS®, and SEM modeling was carried out in AMOS v.21 (integrated with SPSS®), which provides tools for model specification, estimation, and evaluation (Byrne, 2016).

Data Source and Sample

The data were extracted from the iESGo Technical Report (TCU, 2024), which encompasses 387 organizations. For this study, the initial sample was restricted to 280 organizations in the Brazilian Federal Executive Branch, after excluding entities from other branches of government, professional regulatory bodies, and organizations not linked to Accountability Units. From this group, 50 organizations were identified as multivariate *outliers* using Mahalanobis distance and were subsequently removed to ensure estimation stability and reduce the influence of extreme observations (Byrne, 2016; Hair et al., 2019), resulting in a final analytical sample of 230 organizations.

To mitigate potential selection bias from this exclusion, a sensitivity analysis compared estimates with and without the identified *outliers* (N = 280 vs. N = 230). For the structural relationships, the path Risk Management ← Integrity changed from -0.326 (N = 280) to -0.128 (N = 230), an increase 0.198. This finding indicates that the negative sign was preserved, although with reduced magnitude, suggesting a weakening of the relationship without altering its direction. For the path Public Governance ← Risk Management, the coefficient varied from 0.904 to 0.862 ($\Delta\beta$ = -0.042), indicating a strong and stable association between the constructs. Similarly, for the path Public Integrity ← Public Governance, the coefficient decreased from 0.966 to 0.939 ($\Delta\beta$ = -0.027), confirming a very strong and stable relationship despite the slight reduction observed.

Incremental fit indices were virtually unchanged across the two estimations, reinforcing the model's overall consistency. The Normed Fit Index (NFI) remained unchanged at 0.942, whereas the Incremental Fit Index (IFI) increased from 0.960 to 0.964, indicating a marginal improvement in model fit. Likewise, the Root Mean Square Error of Approximation (RMSEA) decreased from 0.085 to 0.082, suggesting a slight reduction in approximation error, while the 90% confidence intervals remained overlapping (0.069–0.101 versus 0.064–0.100), further supporting the robustness of the estimated solution. In addition, the PCLOSE statistic increased from 0.000 to 0.003, indicating a modest improvement in model fit.

In comparative terms, the parsimony criteria produced mixed yet overall favorable results for the N = 230 solution. The Akaike Information Criterion (AIC) decreased from 228.617 to 205.208, a reduction of 23.409 points, indicating a more parsimonious and relatively more efficient model for this sample. Conversely, the Expected Cross-Validation Index (ECVI) increased from 0.819 to 0.896, suggesting that although the adjusted model exhibited improved internal fit efficiency, its capacity for replication in future samples may have become slightly less favorable. Taken together, the results indicate structural stability, a modest improvement in overall model fit, and a limited trade-off in terms of external predictive validity.

The observed variables were used in accordance with the iESGo scoring methodology, which is grounded in conceptual measurement models (Grimm & Yarnold, 2000; Hair et al., 2019) that convert ordinal maturity scales into continuous scores ranging from 0 to 1. Consequently, no additional transformations were applied, and the indicators were used directly to form the model constructs, each comprising three to five variables.

Construct Development and Indicators

Using the iESGo 2024 dataset, institutional indicators were systematized and linked to the latent constructs of public governance, risk management, and public integrity based on their conceptual and normative alignment. Table 2 presents the correspondence between indicators and analytical constructs, which served as the basis for the measurement items tested in the empirical model.

Table 2 – Relationship Between Constructs, Indicators, and Measurement Items

CONSTRUCTS	INDICATORS	IESGO INDICES	IESGO DESCRIPTION
Public Governance	GOV 1	Integrated Public Governance and Management Index	Organizational governance and public management practices.
	GOV 2	Organizational Public Governance Index	All practices assessed under the organizational public governance dimension.
	GOV 3	Governance Model Establishment Index	The organization's internal governance structure is established.
	GOV 4	Critical Decision-Making by Senior Management Index	The organization ensures an appropriate balance of power for critical decision-making.
Risk management	GRI 1	Risk Management Institutionalization Index	The risk management structure is defined.
	GRI2	Risk Management Process Implementation Index	Typical second-line activities are established.
	GRI3	Risk Analysis Methodology Application Index	The organization's risk management process is implemented.
	GRI4	Risk Management Monitoring Index	Risks considered critical to the organization are effectively managed.
	GRI5	IT and Information Security Risk Management Index	The organization implements a risk management process for information technology risks related to business processes.
Public Integrity	INT1	Anti-Corruption Initiatives Adherence Index	Mechanisms for investigating indications of irregularities and promoting accountability when misconduct is confirmed are established.
	INT2	National Anti-Corruption Prevention Program Adherence Index	Members of senior management and governing boards or senior collegiate bodies are committed to integrity.
	INT3	Leadership Alignment with Integrity Practices Index	Ethics management mechanisms are in place within the organization.
	INT4	Institutional Ethics Structure Index	The organization's integrity program is established.
	INT5	Integrity in Public Procurement Index	The organization promotes ethical conduct in public procurement processes.

Source: Elaborated by the authors.

The operationalization of the constructs was based on the assumption that public governance, risk management, and integrity constitute distinct, although interrelated, analytical domains. The iESGo indicators were selected and aggregated to preserve this conceptual distinction and were employed as observed variables in the estimation of the empirical model.

Analytical Techniques

Initially, descriptive and correlation analyses were conducted on the indicators. Subsequently, Exploratory Factor Analysis (EFA) was used to identify the latent structure of the constructs (Marôco, 2014). For item retention, a factor loading threshold of 0.50 or higher was adopted, a criterion considered appropriate for large samples (Hair et al., 2019).

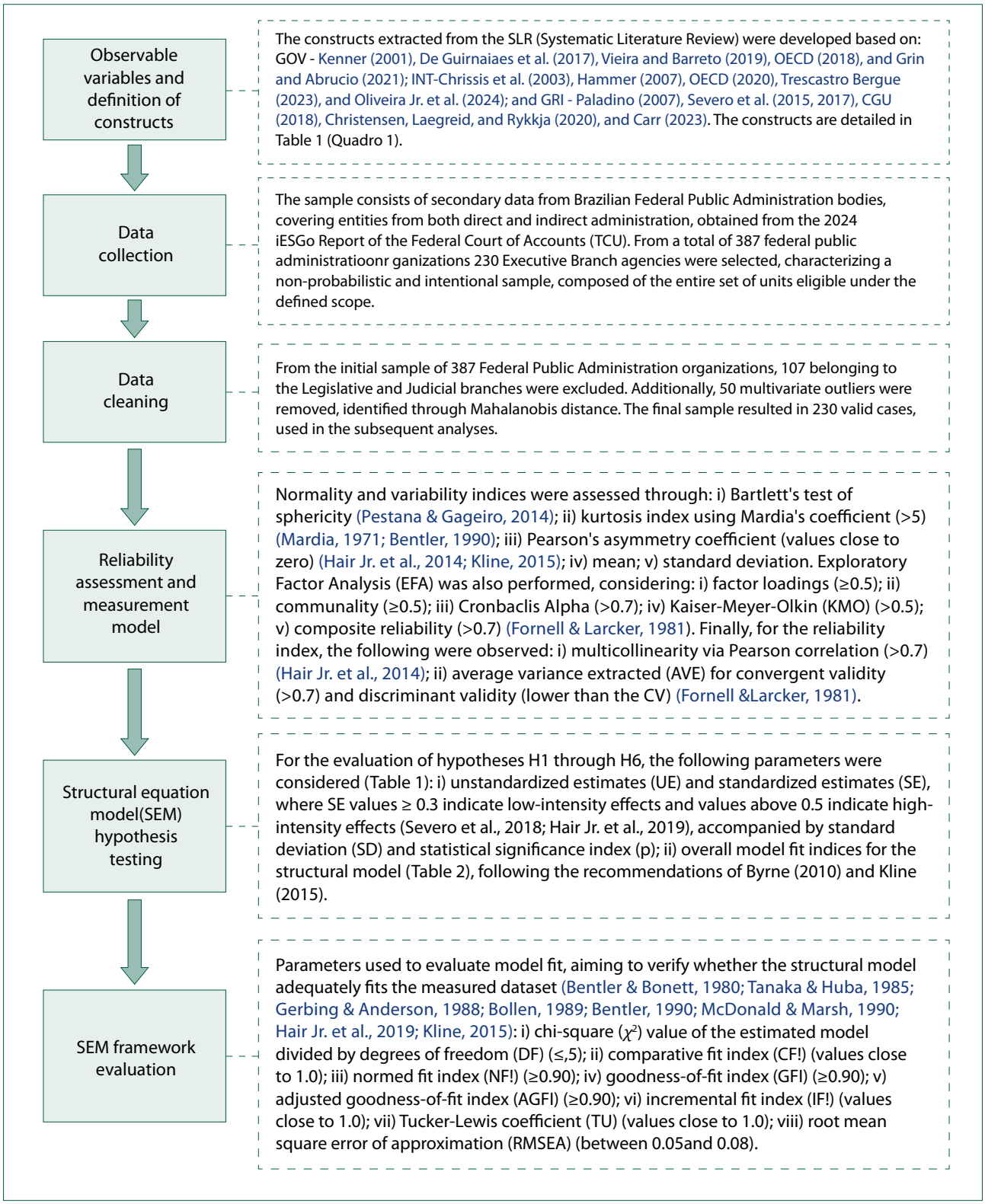
Next, Confirmatory Factor Analysis (CFA) was conducted to validate the construct structure and assess the quality of the measurement model, using fit indices such as CFI, TLI, RMSEA, and SRMR (Byrne, 2016; Kline, 2015). This stage confirmed convergent validity, discriminant validity, and composite reliability, thereby ensuring the robustness of construct measurement.

Because of AMOS's operational limitations in identifying and stably estimating this type of structure, the hypotheses formulated in opposite directions between the constructs were not estimated simultaneously within a single non-recursive model. Accordingly, these relationships were treated as competing paths and tested separately in alternative models (Models 1 and 2). This procedure is consistent with cross-sectional research designs and seeks to preserve model identifiability and the robustness of parameter estimates while maintaining an empirical focus on comparing plausible structural associations.

The measurement and structural models were estimated in AMOS (v.21) using the Maximum Likelihood (ML) estimator. Given the violation of multivariate normality observed through Mardia's coefficients, a bias-corrected bootstrap procedure was used to obtain more robust standard errors and confidence intervals, consistent with methodological recommendations for SEM under non-normality (Hair et al., 2019; Kline, 2015). Therefore, the interpretation of the coefficients is limited to associations within the estimated model, without strict causal inference due to the cross-sectional nature of the research design.

Finally, the complete structural model was tested using SEM, with hypothesis testing based on standardized coefficients (β), standard errors, and significance levels (p). In summary, the research methodology comprised the following stages: (i) definition of the constructs and observed variables; (ii) data collection, organization, and preparation; (iii) coding and standardization of variables; (iv) assessment of the constructs and evaluation of measurement model fit; and (v) estimation and evaluation of the structural model, as illustrated in Figure 3.

Figure 3 – Research Method Design



Source: Adapted from Guimarães (2021).

A key limitation of the study is the institutional heterogeneity of organizations within the Brazilian federal public administration, which includes ministries, autonomous agencies, foundations, and state-owned enterprises, each characterized by distinct structures and levels of organizational maturity. This diversity may affect data comparability. Furthermore, because technical civil servants prepare responses to the iESGo assessment instrument, which senior management validates, social desirability bias is possible, as noted by Vieira and Barreto (2019), requiring caution when interpreting the reported levels of adherence.

RESULTS

The final sample comprised 230 federal public organizations, of which 16.1% belonged to the Direct Administration (DA) and 83.9% to the Indirect Administration (IA). Among the IA organizations, 64.2% were autonomous agencies, 10.9% were public enterprises, 18.2% were foundations, and 6.7% were mixed-capital companies. The organizations operate in areas such as Education, Health, Infrastructure, Defense, and Justice and have different legal structures, including entities operating under more autonomous administrative regimes and others linked to the central structure of the Federal Government.

After data collection, coding, and preparation, reliability and normality tests were performed. In the EFA, Bartlett's test was significant ($p < 0.001$), and the KMO value (0.921) indicated a high level of sampling adequacy. Univariate normality was assessed using skewness and kurtosis, whereas multivariate normality exhibited violations according to Mardia's coefficients (Hair et al., 2019; Kline, 2015).

Given this violation, *bias-corrected bootstrap* procedures were used to ensure inferential robustness in the CFA and SEM analyses. Mardia's kurtosis coefficient values were above the critical threshold, whereas Pearson's skewness coefficient remained close to zero. Thus, although the assumption of multivariate normality was not fully met, bootstrapping enabled more statistically robust inferences in the estimated model.

Table 3 presents the results of the factor analysis and the construct reliability indices.

Table 3 – Factor Analysis and Construct Reliability Indices

CONSTRUCTS	INDICATORS	FACTOR LOADING	COMMUNALITY	MEAN	STANDARD DEVIATION	(A) *	KMO **	CR ***
Governance (GOV)	GOV1	0.946	0.896	4.290	0.950	0.890	0.762	0.910
	GOV2	0.960	0.921	4.320	0.920			
	GOV3	0.751	0.565	4.120	0.880			
	GOV4	0.774	0.599	4.210	0.860			

(continue)

(conclusion)

Table 3 – Factor Analysis and Construct Reliability Indices

CONSTRUCTS	INDICATORS	FACTOR LOADING	COMMUNALITY	MEAN	STANDARD DEVIATION	(A) *	KMO **	CR ***
Public Integrity (INT)	INT1	0.708	0.501	4.130	0.790	0.880	0.831	0.900
	INT2	0.923	0.853	4.210	0.880			
	INT3	0.851	0.725	4.180	0.840			
	INT4	0.840	0.705	4.220	0.870			
	INT5	0.815	0.664	4.170	0.860			
Risk Management (GRI)	GRI1	0.872	0.761	4.020	0.870	0.860	0.824	0.910
	GRI2	0.871	0.760	3.980	0.850			
	GRI3	0.932	0.869	4.010	0.890			
	GRI4	0.901	0.812	3.990	0.840			
	GRI5	0.763	0.582	4.030	0.880			

Source: Elaborated by the authors.
Cronbach's alpha (α)
** Kaiser–Meyer–Olkin Index (KMO)
*** Composite Reliability (CR)

The means of the observed variables ranged from 3.980 to 4.320, and the standard deviations ranged from 0.790 to 0.950, suggesting favorable and relatively homogeneous assessments of governance, risk management, and integrity mechanisms. Internal reliability was confirmed by Cronbach's alpha coefficients (α), which ranged from 0.860 for GRI to 0.890 for GOV, exceeding the minimum threshold of 0.70 and indicating high internal consistency (Hair et al., 2019; Grimm & Yarnold, 2000; Nunnally & Bernstein, 1994).

Convergent validity and composite reliability were assessed using Average Variance Extracted (AVE) and *Composite Reliability* (CR), following Hair et al. (2019). The GOV construct exhibited high factor loadings, reaching 0.960, except for GOV3 (0.565), which remained acceptable. For GRI, only GRI5 had a lower communality value (0.582), which did not compromise the model. For public integrity, factor loadings ranged from 0.708 to 0.923, and communalities ranged from 0.501 to 0.853, indicating construct consistency. In summary, GOV showed the greatest robustness, while GRI and INT also presented satisfactory measurement properties, supporting the subsequent analysis of discriminant validity.

In the EFA, factor loadings above 0.70 and communalities ranging from 0.501 for INT1 to 0.921 for GOV2 were observed, supporting the proportion of construct variance explained by the indicators (Hair et al., 2019; Pestana & Gageiro, 2008). Discriminant validity was examined using Pearson correlations, with some associations exceeding 0.70, such as GOV1↔GOV3 (0.743) and INT3↔INT4 (0.771). Nevertheless, because these correlations remained below 0.90 and were compatible with the factor structure and theoretical coherence, the variables were retained (Hair et al., 2019).

Table 4 summarizes the composite reliability, convergent validity, and internal consistency indices for the three constructs analyzed.

Table 4 – Convergent Validity and Construct Reliability

CONSTRUCTS	COMPOSITE RELIABILITY (CR)	AVERAGE VARIANCE EXTRACTED (AVE)	CRONBACH'S ALPHA (A)
Governance	0.910	0.770	0.890
Risk Management	0.880	0.710	0.860
Public Integrity	0.900	0.750	0.880

Source: Elaborated by the authors.

The CR and AVE values met the recommended thresholds, supporting the convergent validity of the measurement model. Discriminant validity was assessed using the Fornell and Larcker (1981) criterion by comparing the square root of the AVE with the correlations among the constructs (Hair et al., 2019). In addition, discriminant validity was examined using the HTMT criterion, with a threshold of < 0.90 and confidence intervals obtained through *bootstrap* procedures (Tables 3 and 4).

After establishing the measurement model's reliability and validity, the structural model was estimated to test the six hypotheses (H1 to H6). The model exhibited a satisfactory fit (χ^2/df = 3.3; RMSEA = 0.024; CFI = 0.912; TLI = 0.913; IFI = 0.913). Although the NFI (0.880), GFI (0.883), and AGFI (0.856) values were slightly below frequently cited cutoff points, these values were treated as heuristic guidelines and evaluated alongside the adequacy of the measurement model, theoretical coherence, and the inferential robustness achieved through *bootstrap* procedures (Byrne, 2016; Hair et al., 2019).

Discriminant Validity (DV) was assessed using the Heterotrait–Monotrait Ratio (HTMT), and 95% confidence intervals were obtained through bootstrapping based on 5,000 resamples, as shown in Table 5.

Table 5 – Discriminant Validity Based on the HTMT Criterion

CONSTRUCT PAIR	HTMT	IC 95% (LOWER BOUND)	IC 95% (UPPER BOUND)	CRITERION (CI < 1.0)
Governance ↔ Integrity	0.942	0.891	0.984	Met
Governance ↔ Risk Management	0.931	0.875	0.978	Met
Integrity ↔ Risk Management	0.958	0.912	0.996	Met

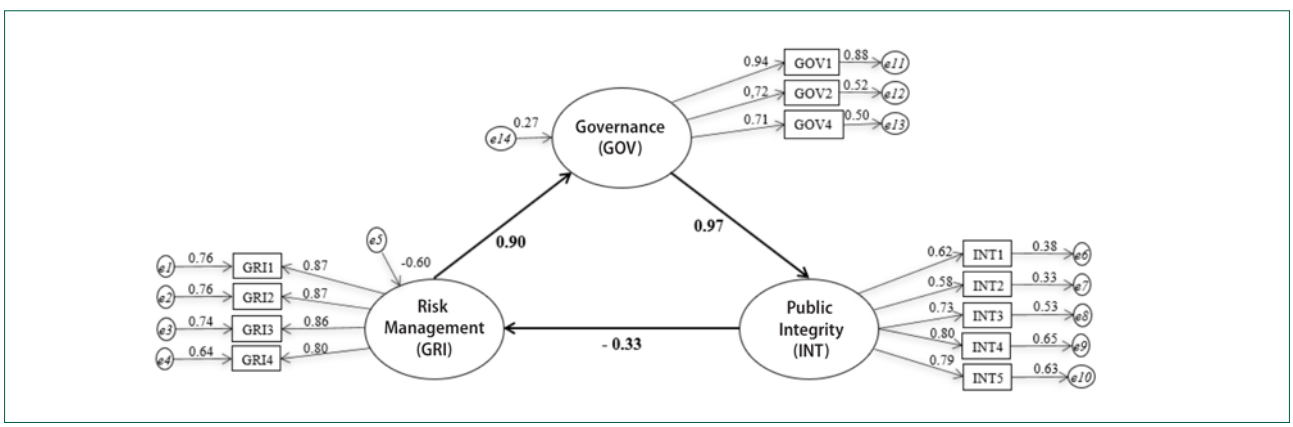
Source: Elaborated by the authors.
Values obtained through bootstrapping with 5,000 resamples. Although the point estimates are high (> 0.90), discriminant validity is statistically supported because the upper bound of the 95% confidence interval does not reach unity (1.00).

The HTMT values for the construct pairs ranged from 0.931 to 0.958. In all cases, the upper bound of the 95% confidence interval remained below 1.00, thus meeting the inferential criterion for discriminant validity proposed by Henseler et al. (2015). These results indicate that, despite the substantial empirical proximity among governance, integrity, and risk management, the constructs remain statistically distinct within the measurement model.

It should be noted that the AMOS *software* does not natively calculate HTMT values with confidence intervals obtained through *bootstrap* procedures. Therefore, the HTMT analysis and the corresponding confidence intervals were calculated in an external environment. The high correlations reflect conceptual overlap inherent in the iESGo context, such as leadership, control, and *accountability*, resulting in strong substantive convergence among related institutional capacities. Accordingly, the HTMT values were treated as heuristic guidelines rather than absolute criteria. Model acceptance was based on theoretical coherence, the adequacy of the factor loadings and reliability indices, and the inferential robustness ensured by *bootstrap* estimation. In particular, H2 (GRI→GOV) was not supported because the structural coefficient was not statistically significant, indicating a lack of evidence of a direct association between risk management and governance in the estimated model, although the constructs remained correlated.

Based on the validated constructs and tested hypotheses, Figure 4 presents Model 1, which integrates the measurement and structural components for hypotheses H1, H2, and H3. The path diagram summarizes the estimated relationships and highlights the standardized coefficients for each path.

Figure 4 – Measurement and Structural Model 1 (Hypotheses H1, H2, and H3)



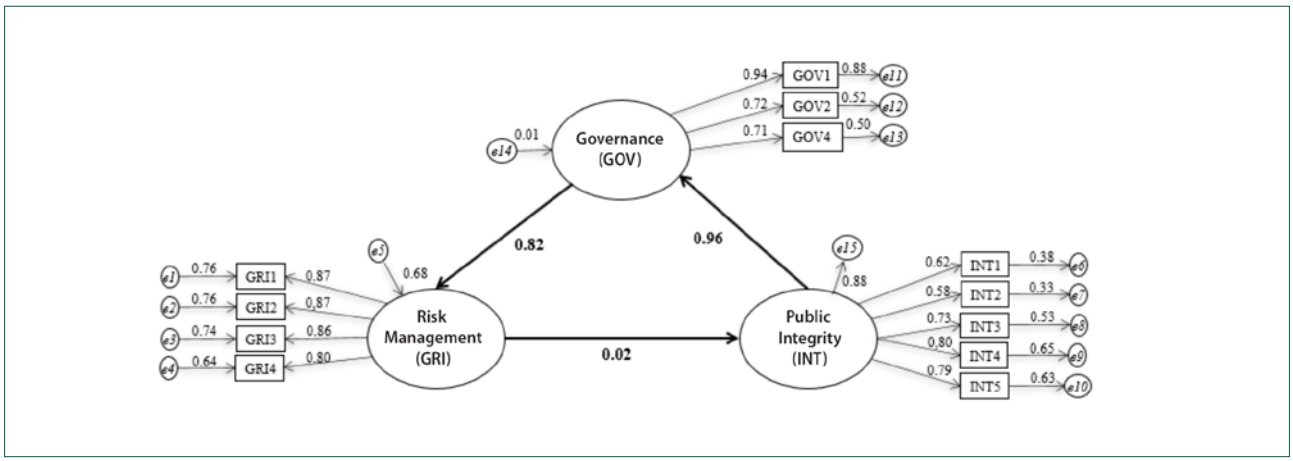
Source: Elaborated by the authors.

Hypothesis H1 (GOV→GRI) was supported ($\beta = 0.900$; $p < 0.001$), indicating a positive association between governance and risk management in the estimated model. Hypothesis H2 (GRI→GOV) was not supported ($p > 0.05$), suggesting insufficient evidence of a statistically significant

direct association between risk management and governance in the sample analyzed, although the constructs remained correlated. Hypothesis H3 (GOV→INT) was supported ($\beta = 0.970$; $p < 0.001$), indicating a positive association between governance and integrity.

To complement the analysis, Figure 5 presents Model 2, in which hypotheses H4, H5, and H6 were tested. As in Model 1, the diagram integrates the measurement and structural components, allowing an examination of the estimated relationships among integrity, governance, and risk management.

Figure 5 – Measurement and Structural Model 2 (Hypotheses H4, H5, and H6)



Source: Elaborated by the authors.

Hypothesis H4 (INT→GOV) was supported ($\beta = 0.960$; $p < 0.001$), indicating a positive association between integrity and governance. Hypothesis H5 (GRI→INT) was not supported ($\beta = 0.020$; $p > 0.05$), suggesting a lack of evidence of a direct association between risk management and integrity in the estimated model. Finally, hypothesis H6 (INT→GRI) was supported ($\beta = 0.820$; $p < 0.001$), indicating a positive association between integrity and risk management.

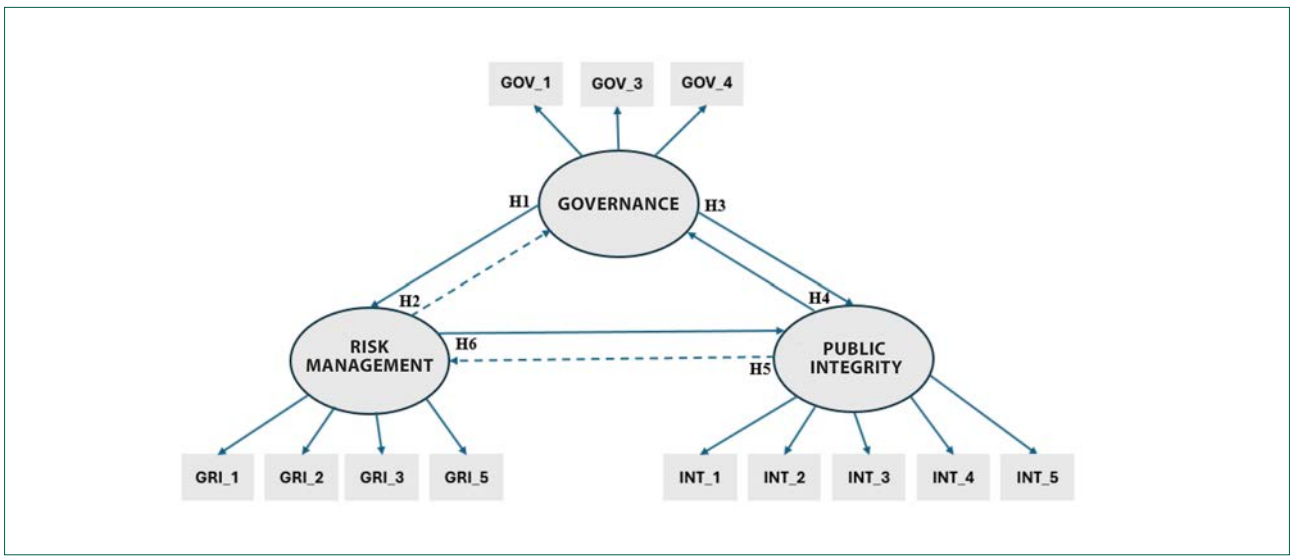
Overall, the results supported four of the six hypotheses (H1, H3, H4, and H6). Hypotheses H2 and H5 did not receive empirical support, suggesting that not all the proposed direct relationships are observed.

Discussion

The study's primary contribution is empirical evidence on the relationships among governance, risk management, and integrity within the Brazilian Federal Executive Branch. Figure 6 summarizes the estimated model results, distinguishing relationships that received empirical support from those that did not. The findings indicate that integrity plays a structuring role within the institutional arrangement analyzed, whereas the direct effects of risk management appear more conditional in the empirical

context examined. This representation contributes to the broader debate on priorities for institutional strengthening and informs future research agendas.

Figure 6 – Final Framework of the Relationships Among Governance, Risk Management, and Public Integrity



Source: Elaborated by the authors.
Note: Supported hypotheses are represented by solid lines; rejected hypotheses are represented by dashed lines.

The findings reveal an asymmetric pattern of integration. Governance and integrity exhibit a reciprocal association within the model, suggesting mutual reinforcement between leadership and control arrangements and standards of public conduct. In contrast, risk management does not appear, within this cross-sectional context, to function as a component that automatically "drives" governance and integrity through direct and consistent relationships. This result shifts the interpretation from a "symmetrical and universal" model toward a contingent form of integration, dependent on how these capacities are implemented and embedded within organizational functioning.

The lack of support for H2 (GRI→GOV) and H5 (GRI→INT) indicates that the direct effects of risk management on governance and integrity do not automatically manifest within the empirical context analyzed. Although the literature emphasizes that governance creates the conditions necessary for institutionalizing risk management and aligning controls with strategic objectives (OECD, 2018, 2021), and recognizes the potential of risk management mechanisms to prevent failures and misconduct (Cunha & Silva, 2020; Power, 2007), the results suggest that, in this context, such effects may not appear as direct associations in the estimated model.

One plausible interpretation is that risk management may still exhibit limited institutional density, being partially operationalized as a compliance-oriented practice with a restricted capacity to reconfigure decision-making routines and *accountability* arrangements in the short term (Mendes &

Oliveira, 2021; Vieira & Barreto, 2019). From this perspective, its effects are likely to be indirect and depend on leadership, monitoring routines, and integration with control systems, consistent with incremental trajectories of administrative maturation.

Conversely, the statistically significant associations between integrity and governance (H4), and between integrity and risk management (H6), reinforce integrity's cross-cutting role within the institutional arrangement examined. Empirically, this suggests that institutional environments with stronger integrity, ethical standards, transparency, and more consolidated accountability mechanisms are associated with more robust governance arrangements and more structured risk management practices. This interpretation aligns with perspectives that regard integrity as a central dimension of modern administrative systems and as a foundation of institutional trust and accountability (Bovens et al., 2014; Christensen et al., 2020).

At the same time, the statistically significant association of integrity with both governance and risk management supports its role as the central pillar of the proposed framework. Substantively, this suggests that institutional environments with higher levels of integrity, understood as the capacity to promote ethical standards, transparency, accountability, and the prevention of opportunistic behavior, tend to be associated with stronger governance arrangements and more robust risk management practices. This result aligns with international evidence that positions integrity as a core dimension of contemporary administrative systems and as a foundation for institutional trust (Christensen et al., 2020).

It is acknowledged that governance and integrity exhibit substantial institutional overlap within the public sector. However, the distinction adopted in this study is analytical and functional, intended to enhance understanding of different organizational mechanisms rather than to imply a strict ontological separation between the constructs.

Accordingly, the final framework indicates that the integration among governance, risk management, and integrity does not constitute a "perfect triangle" of direct relationships among the constructs. Instead, it reveals a configuration in which governance and integrity mutually reinforce one another, while risk management, although relevant, appears to depend on organizational maturity and institutional embeddedness to produce observable direct effects on governance and integrity within a cross-sectional research design.

CONCLUDING REMARKS

The results indicate that the relationships among public governance, risk management, and public integrity are complex and asymmetric within the estimated model. Statistically significant associations were observed between governance and integrity, as well as between integrity and risk management, suggesting that integrity functions as a cross-cutting dimension in the context analyzed. Conversely, the direct relationship between risk management and integrity did not receive empirical support, indicating that not all expected connections manifest as direct effects in the context under investigation.

In addition to confirming part of the proposed hypotheses, the study shows that, within the Brazilian Federal Executive Branch, the advancement of these practices depends not only on normative compliance but also on strategic integration that generates institutional synergies and enhances organizational resilience. The results associated with the lack of support for H2 and H5 reinforce the understanding that the integration of governance, risk management, and integrity occurs asymmetrically. These findings provide valuable insights for public managers and policymakers, highlighting the importance of initiatives that align strategic planning (OECD, 2020), internal control (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2017), and ethical culture (Amâncio et al., 2024; Paine, 1994) to strengthen the state's capacity to deliver public value with integrity and efficiency (Denhardt & Denhardt, 2003; Hood, 1991).

From both theoretical and methodological perspectives, this study advances the empirical operationalization of integrating governance, risk management, and integrity within a single structural model, treating these domains as analytically distinct yet interrelated constructs. By employing Structural Equation Modeling (SEM) with national iESGo data, the article expands a predominantly normative body of literature, providing quantitative evidence on the directionality and asymmetry of these relationships. Furthermore, testing competing models and incorporating robust measurement model validation procedures strengthen the analysis's methodological rigor.

From a practical and institutional standpoint, the findings suggest that integrating governance and integrity is more effective than directly incorporating risk management as an autonomous driver of these arrangements. This indicates that risk-related policies and instruments tend to generate more substantial effects when anchored in well-established governance, leadership, and *accountability* structures. In this regard, the results guide public managers and oversight bodies by showing that strengthening risk management practices in isolation may be insufficient to promote substantive advances in integrity unless these practices are integrated into broader institutional arrangements.

Complementarily, the findings suggest that risk management initiatives tend to produce better outcomes when aligned with already institutionalized governance and integrity structures, thereby fostering the integration and coordination of organizational mechanisms. This interpretation is consistent with recommendations on integrating controls and aligning them with strategic objectives in the public sector (COSO, 2017; OECD, 2020), contributing to the strengthening of the State's capacity to deliver public value with integrity and effectiveness (Denhardt & Denhardt, 2003). This study presents several relevant limitations. The use of secondary data from the iESGo/TCU may introduce biases and limitations associated with information updates. The cross-sectional design limits causal inferences, and the sample restricted to the Federal Executive Branch constrains the generalizability of the findings to other levels of government. Moreover, heterogeneity across organizations in terms of size, mission, and administrative maturity may affect the comparability of the results.

As a future research agenda, it is recommended to expand the scope of analysis to the state and municipal levels and to conduct international comparisons and subgroup analyses to test the stability

and contextual variation of the observed relationships. It would also be valuable to incorporate organizational variables, such as culture, top management characteristics, and administrative capacity, as moderating and mediating factors, thereby enabling a more precise examination of indirect and conditional mechanisms.

In summary, the main contribution of this study is to provide empirical evidence, based on iESGo/TCU data, that identifies which relationships among governance, risk management, and integrity are statistically supported and which remain dependent on contextual conditions and institutional maturity. This contribution reinforces the importance of evidence-based public management, particularly in designing and integrating governance, integrity, and risk management mechanisms.

REFERENCES

Amâncio, D. L. P., Faria, E. R. D., & Biscaia, R. O. B. M. (2024). Integridade pública: (De) limitações conceituais e caminhos para uma agenda robusta. *Cadernos Gestão Pública e Cidadania*, *29*, e90895. https://doi.org/10.12660/cgpc.v28.90895

Barbosa, H. G., & Figueiredo, A. L. (2022). Governança e capacidades estatais: Desafios para a implementação de políticas públicas no Brasil. *Revista de Administração Pública*, *56*(5), 789-813.

Bergue, S. T. (2023). Integridade: problematizando o conceito no contexto da administração pública brasileira. *Anais do 10º Encontro Brasileiro de Administração Pública*.

Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research*, *17*(3), 303-316. https://doi.org/10.1177/0049124189017003004

Bovens, M., Goodin, R. E., & Schillemans, T. (2014). *The Oxford handbook of public accountability.* Oxford University Press.

Bresser-Pereira, L. C. (2007). Burocracia pública e reforma gerencial. *Revista do Serviço Público de 1937 a 2007*.

Byrne, B. M. (2016). Adaptation of assessment scales in cross-national research: Issues, guidelines, and caveats. *International Perspectives in Psychology*, *5*(1), 51-65.

Carlos, L. G., Kochi, T. G., Cintra, R. F., & Ribeiro, I. (2025). Corrupção no serviço público: Fatores relacionados ao desengajamento moral e à cultura ética organizacional. *Revista de Administração Pública*, *59*(6), e2024-0496. https://doi.org/10.1590/0034-761220240496x

Carr, I. (2023). Public integrity and ethics in government: Building sustainable institutions. *Public Integrity*, *25*(1), 23-37. https://doi.org/10.1080/10999922.2022.2033065

Carvalho, A. R., & Cunha, D. L. (2022). Adoção de práticas de gestão de riscos em organizações públicas brasileiras: Um estudo exploratório. *Revista de Contabilidade e Organizações*, *16*(1), 1-17. https://doi.org/10.11606/issn.1982-6486.rco.2022.189875

Christensen, T., Lægreid, P., & Rykkja, L. H. (2020). Organizing for crisis management: Building governance capacity and legitimacy. *Public Administration Review*, *80*(6), 1040-1050. https://doi.org/10.1111/puar.13241

Cirino, A. L., Tavares, B., Pereira, B. A. D., & Silva, F. C. D. (2024). Estrutura e mecanismos da governança em rede na implementação de políticas públicas. *Cadernos Gestão Pública e Cidadania*, *29*, e89644. https://doi.org/10.12660/cgpc.v29.89644

Committee of Sponsoring Organizations of the Treadway Commission. (2017). *Enterprise risk management: Integrating with strategy and performance.* COSO Publishing.

Controladoria-Geral da União. (2018). *Guia prático de gestão de riscos para a integridade*.

Cruz, C. F., & Viana, M. F. (2019). Ética e integridade no setor público: Um estudo sobre a percepção de servidores públicos. *Revista do Serviço Público*, *70*(2), 331-358.

Denhardt, R. B., & Denhardt, J. V. (2003). *The new public service: An approach to reform*. M. E. Sharpe.

Filgueiras, F. (2011). Além da transparência: Accountability e política da publicidade. *Revista Brasileira de Ciências Sociais*, *26*(77), 109-127. https://doi.org/10.1590/S0102-64452011000300004

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50. https://doi.org/10.1177/002224378101800104

Grin, E. J., & Abrucio, F. L. (2021). Hybridism as a national policy style: The case of the Brazilian federal government's response to COVID-19. *Policy Studies*, *42*(5/6), 553-570. https://doi.org/10.1590/0103-3352.2021.35.234516

Grimm, L. G., & Yarnold, P. R. (2000). *Reading and understanding MORE multivariate statistics*. American psychological association.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. Bookman editora.

Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8a ed.). Cengage.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*(1), 115-135.

Hood, C. (1991). Public management for all seasons? *Public Administration*, *69*(1), 3-19. https://doi.org/10.1111/j.1467-9299.1991.tb00779.x

Huberts, L. (2014). *The integrity of governance: What it is, what we know, what is done and where to go*. Springer.

International Organization for Standardization. (2018). *Risk management: Guidelines (ISO 31000:2018).* Associação Brasileira de Normas Técnicas (ABNT). https://www.iso.org/standard/65694.html

Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4a ed.). Guilford Press.

Maruyama, G. (1997). *Basics of structural equation modeling*. Sage.

Marôco, J. (2014). *Análise de equações estruturais: Fundamentos teóricos, software & aplicações*. ReportNumber, Lda.

Martínez, M. E., Pilati, R., & Alvarez-Díaz, M. (2016). O papel da integridade na administração pública: Uma abordagem institucional. *Revista de Administração Pública*, *50*(5), 735-756. https://doi.org/10.1590/0034-7612155676

Mendes, L. R., & Oliveira, F. R. (2021). Gestão de riscos no setor público: Uma análise dos fatores críticos de sucesso. *Revista Administração em Diálogo*, *23*(3), 45-62. https://doi.org/10.23925/2178-0080.2021v23i3.54356

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3a ed.). McGraw-Hill.

Oliveira, V. G. D., & Abib, G. (2023). Risco na administração pública: uma revisão sistemática focada em uma agenda de pesquisas futuras. *Revista de Administração Pública*, *57*, e2022-0419. https://doi.org/10.1590/0034-761220220419

Oliveira, A. B., Silva, P. V. J. da G., & Gomes, J. S. (2025). A integração entre governança, gestão de riscos e integridade na administração pública. *Revista de Administração Pública*, *59*(4), e2025-0042. https://doi.org/10.1590/0034-761220250042

Oliveira, T. M. D., Rodrigues, K. F., Silva, S. D. A. M. E., & Bergue, S. T. (2024). Integridade, ética e combate à corrupção no campo da administração pública brasileira: Desafios conceituais e horizontes possíveis. *Cadernos Gestão Pública e Cidadania*, *29*, e92312. https://doi.org/10.12660/cgpc.v29.92312

Oliveira, T. M., Júnior, Rodrigues, K. F., & Pacheco, C. E., Filho. (2026). Sobre a incorporação da integridade pública pelo Exército Brasileiro. *Cadernos Gestão Pública e Cidadania*, *31*(1), e94521-e94521. https://doi.org/10.12660/cgpc.v31.n1.94521

Organização para a Cooperação e Desenvolvimento Econômico. (2018). *OECD public integrity handbook.* OECD Publishing.

Organização para a Cooperação e Desenvolvimento Econômico. (2020). *Public integrity handbook.* OECD Publishing.

Organização para a Cooperação e Desenvolvimento Econômico. (2021). *Building a culture of integrity in the public sector*. OECD Publishing.

Osborne, S. P. (2006). The new public governance? *Public Management Review*, *8*(3), 377-387. https://doi.org/10.1080/14719030600853022

Pagani, R. N., Pedroso, B., Santos, C. B. dos, Picinin, C. T., & Kovaleski, J. L. (2023). Methodi Ordinatio 2.0: Revisited under statistical estimation, and presenting Finder and Rankin. *Quality & Quantity*, *57*(5), 4563-4602. https://doi.org/10.1007/s11135-022-01562-y.

Paine, L. S. (1994). Managing for organizational integrity. *Harvard Business Review*, *72*(2), 106-117. https://doi.org/10.1016/B978-0-7506-7009-8.50012-7

Pestana, M. H., & Gageiro, J. N. (2008). Análise de dados para ciências sociais: a complementaridade do SPSS.

Power, M. (2007). *Organized uncertainty: Designing a world of risk management*. Oxford University Press.

Prado, M. M., Cavalcante, P., & Hartmann, I. (2020). Capacidades estatais e governança no setor público brasileiro: Avanços e desafios. *Revista de Administração Pública*, *54*(3), 469-493. https://doi.org/10.1590/0034-761220190259

Rodrigues, R. C. (2026). Governança, comitê e/ou órgão de governança: Nexos e evidências nas universidades federais brasileiras. *Cadernos Gestão Pública e Cidadania*, *31*(1), e91548-e91548. https://doi.org/10.12660/cgpc.v31.n1.91548

Santos, L. S., & Serafim, M. C. (2024). Em busca de uma ética administrativa pós-convencional no contexto das organizações públicas brasileiras. *Cadernos Gestão Pública e Cidadania*, *29*, e90978. https://doi.org/10.12660/cgpc.v29.90978

Souza, T. S., & Araújo, A. S. (2023). Confiança pública e integridade institucional: Perspectivas para a gestão pública contemporânea. *Revista Gestão & Políticas Públicas*, *13*(1), 24-41. https://doi.org/10.21171/gespol.v13i1.7558

Transparência Internacional. (2024). *Índice de percepção da corrupção 2023*. http://www.transparenciainternacional.org.br/ipc

Tribunal de Contas da União. (2017). *Referencial básico de governança aplicável a órgãos e entidades da administração pública.*

Vieira, J. B., & Barreto, R. T. D. S. (2019). Governança, gestão de riscos e integridade.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

DATA AVAILABILITY

The complete dataset supporting the findings of this study is published within the article itself.

AUTHOR CONTRIBUTIONS

Alessandro Bandeira de Oliveira: Conceptualization; Data Curation; Formal Analysis; Funding Acquisition; Investigation; Methodology; Project Administration; Resources; Software; Validation; Visualization; Writing – Original Draft; Writing – Review & Editing.

Josir Simeone Gomes: Supervision.