

Governance of Nonfinancial Performance Metrics

Sharron O'Neill

Associate Professor, UNSW Canberra, University of New South Wales, Australia

Abstract

Nonfinancial performance metrics have become increasingly important in organizational control because conventional accounting indicators alone provide an incomplete representation of customer relationships, operational quality, innovation capability, employee development, safety, service reliability, and other drivers of long-term organizational value. Their broader use, however, creates a governance problem. Unlike standardized financial measures, many nonfinancial metrics depend on internally developed definitions, discretionary weighting, managerial interpretation, fragmented data sources, and uncertain causal assumptions. Consequently, the managerial usefulness of a nonfinancial performance system depends not only on the availability of indicators but also on the quality of governance surrounding their selection, verification, interpretation, incentive use, and oversight.

This study develops a governance-based framework for evaluating nonfinancial performance metrics. Because verified organizational observations were not available, a transparent simulation-based research design was employed rather than presenting synthetic observations as empirical field evidence. A hypothetical dataset comprising 260 business-unit observations was constructed around five explanatory dimensions: metric governance quality, strategic alignment, data assurance, board oversight, and incentive-distortion risk. Decision usefulness of nonfinancial metrics was modeled as the outcome construct. Descriptive comparison and multiple regression were used to assess the internal behavior of the theoretical model.

The simulation indicates that metric governance quality has the strongest positive relationship with decision usefulness. Strategic alignment and data assurance also demonstrate meaningful positive associations, whereas incentive-distortion risk is negatively related to usefulness. Board oversight shows a comparatively limited direct effect once more operational governance mechanisms are considered simultaneously. The findings suggest that nonfinancial measurement becomes valuable when organizations establish clear metric ownership, strategic rationale, consistent definitions, data-control procedures, review mechanisms, and safeguards against opportunistic target manipulation. The study contributes a governance perspective to performance-measurement research by shifting attention from the number of indicators used to the institutional arrangements determining whether those indicators remain reliable, strategically meaningful, and behaviorally responsible.

Keywords: nonfinancial performance metrics; corporate governance; performance measurement; management control; strategic alignment; data assurance; incentive systems; decision usefulness

1. Introduction

Organizational performance has traditionally been assessed through accounting outcomes such as profitability, return on investment, revenue growth, cash generation, cost efficiency, and shareholder returns. These indicators remain essential because they summarize realized economic outcomes and support accountability. Nevertheless, financial measures frequently describe the consequences of previous decisions rather than the operational and strategic conditions that may produce future outcomes. Customer satisfaction, product quality, innovation capability, employee retention, safety performance, service reliability, environmental efficiency, process cycle time, learning capacity, and market development can provide information that is not immediately visible in conventional accounting statements. Kaplan and Norton addressed this limitation through the Balanced Scorecard, arguing that financial indicators should be complemented by measures representing customers, internal processes, learning, and organizational development. Their work established an influential foundation for multidimensional performance measurement.

The expansion of nonfinancial measurement does not, however, guarantee better organizational control. A company may collect hundreds of operational indicators without knowing which indicators actually reflect strategy, which provide leading information about future outcomes, or which merely add reporting complexity. Ittner and Larcker observed that organizations can obtain substantial benefits from nonfinancial measures but frequently fail to establish credible relationships between selected metrics, strategic objectives, and ultimate organizational outcomes. Problems emerge when firms adopt fashionable indicators, assign arbitrary weights, rely on weak measurement systems, or reward managers according to metrics whose validity has never been tested. Under such circumstances, the performance-measurement system may create the appearance of sophistication while weakening rather than improving managerial judgment.

These weaknesses create an important governance issue. Nonfinancial metrics are often more organizationally specific than financial accounting measures. Definitions of employee engagement, customer loyalty, innovation productivity, service quality, sustainability performance, digital adoption, or operational resilience may vary considerably across firms and even across business units within the same organization. The absence of uniform measurement conventions gives managers flexibility to design strategically meaningful indicators, but it also introduces opportunities for selective measurement, inconsistent definitions, target manipulation, favorable interpretation, and excessive subjectivity. Ittner, Larcker, and Meyer demonstrated that subjective weighting within multidimensional performance systems can materially affect performance evaluation, illustrating why governance processes around metric interpretation are as important as metric selection itself.

The governance challenge becomes more significant when nonfinancial metrics influence executive compensation, resource allocation, promotion decisions, strategic investment, or external communication. Ittner, Larcker, and Rajan documented the use of nonfinancial performance measures within annual bonus contracts, while Banker, Potter, and Srinivasan demonstrated that nonfinancial customer-related indicators may provide information associated with subsequent financial outcomes and may influence incentive-system effectiveness. These findings show that nonfinancial measures can possess genuine economic value, but they also imply that poorly governed measures can distort

managerial incentives when substantial rewards depend on indicators that are imprecise, weakly validated, or easily influenced.

The present study therefore examines the governance of nonfinancial performance metrics rather than simply their adoption. It argues that an effective measurement system requires a governance architecture covering strategic alignment, metric ownership, data assurance, review frequency, target-setting discipline, incentive compatibility, board or senior-management oversight, and periodic validation of assumed causal relationships. Because authentic organizational data were not supplied, the study employs a transparent simulation-based methodology. The objective is not to claim real-world causal estimates but to demonstrate how theoretically grounded governance dimensions may interact in determining whether nonfinancial metrics provide useful information for organizational decision making.

2. Objectives of the Study

2.1 To Examine Metric Governance Quality and Decision Usefulness

The first objective is to determine how the overall quality of metric governance may influence the decision usefulness of nonfinancial performance information. Metric governance quality refers to the presence of clearly defined indicators, accountable metric owners, documented calculation procedures, consistent reporting periods, review responsibilities, escalation procedures, and formal mechanisms for modifying or retiring indicators that cease to support organizational strategy. The emphasis therefore moves beyond measurement availability toward the institutional discipline surrounding measurement.

A well-governed indicator should answer several practical questions. The organization should know why the metric exists, what decision it supports, how it is calculated, who owns the underlying data, what constitutes acceptable performance, how frequently the metric should be reviewed, and what limitations affect interpretation. The study evaluates whether stronger governance quality is associated with greater simulated decision usefulness when other characteristics of the measurement system are considered simultaneously.

2.2 To Assess Strategic Alignment and Data Assurance

The second objective is to examine the contribution of strategic alignment and data assurance. Strategic alignment concerns whether a nonfinancial indicator is explicitly connected to the organization's strategic priorities rather than being included merely because information is available. Kaplan and Norton emphasized the importance of linking operational measures with strategic cause-and-effect assumptions rather than treating multidimensional measurement as an unrestricted checklist.

Data assurance concerns the reliability, consistency, traceability, and reproducibility of information entering the measurement system. A strategically attractive indicator may still be unsuitable for governance purposes when underlying data are incomplete or calculated differently across business units. The study therefore treats strategy and data quality as complementary requirements. Strategic alignment answers whether the organization is measuring something important, while data assurance addresses whether that important phenomenon is being measured with sufficient reliability.

2.3 To Evaluate Oversight and Incentive-Distortion Risk

The third objective is to assess the roles of board or senior-level oversight and incentive-distortion risk. Oversight may strengthen accountability by requiring managers to explain the rationale, performance trend, and limitations associated with important nonfinancial indicators. Nevertheless, formal oversight may have little practical effect when governance processes closer to data generation and managerial use remain weak.

The study simultaneously considers incentive-distortion risk because linking performance metrics with bonuses or managerial evaluation can alter behavior toward the metric itself. Managers may focus effort on improving the measured indicator rather than the broader strategic objective that the indicator was intended to represent. Excessive pressure may encourage selective reporting, gaming, threshold management, or neglect of unmeasured dimensions. The study therefore evaluates whether increased incentive-distortion risk reduces the decision usefulness of nonfinancial performance systems.

3. Review of Literature

3.1 Evolution from Financial Measurement to Multidimensional Performance Control

The limitations of exclusively financial performance measurement have been discussed extensively in management-accounting literature. Eccles argued for a broader performance-measurement paradigm as organizations increasingly relied on intangible resources, service quality, innovation, and customer relationships. Kaplan and Norton later formalized the multidimensional approach through the Balanced Scorecard, incorporating financial outcomes alongside customer, internal-process, and learning-oriented measures. Their central argument was not that financial indicators had become irrelevant, but that financial outcomes should be interpreted together with operational drivers capable of explaining how value is created.

Neely, Gregory, and Platts further contributed to the performance-measurement literature by examining how performance-measurement systems can be designed and structured. Their work reinforced the view that individual indicators cannot be evaluated independently of the broader system in which they operate. A measure may be technically sound while remaining strategically irrelevant, or strategically important while being operationally unreliable. Performance measurement must therefore be considered as a system involving design, implementation, interpretation, and continuing adaptation.

Otley's performance-management framework similarly emphasized the relationship among organizational objectives, strategies, targets, rewards, information flows, and feedback mechanisms. This perspective is particularly important for governance because it demonstrates that measurement cannot be isolated from accountability. Metrics influence organizational behavior through the ways targets are communicated, deviations are interpreted, performance is rewarded, and managerial attention is directed.

3.2 Strategic Validity and the Use of Nonfinancial Measures

Empirical research provides evidence that selected nonfinancial indicators can contain information relevant to future financial outcomes. Ittner and Larcker examined customer satisfaction as a potential leading indicator of financial performance and showed why nonfinancial information can provide incremental insight beyond traditional accounting measures. Banker, Potter, and Srinivasan subsequently

reported evidence from the hospitality sector showing relationships between customer satisfaction measures and subsequent financial performance. Their study also indicated that incorporating relevant nonfinancial measures into an incentive plan may affect both nonfinancial and financial outcomes.

The usefulness of such indicators nevertheless depends on strategic validity. Ittner, Larcker, and Randall found that strategic performance-measurement systems may contribute to organizational outcomes when measurement practices are sufficiently connected with strategic priorities. Their work supports the argument that adopting a multidimensional scorecard by itself does not guarantee superior performance. The value lies in how the organization selects, communicates, analyzes, and uses strategically significant measures.

Ittner and Larcker also cautioned that many organizations fail to test assumed causal relationships between nonfinancial measures and desired outcomes. Customer satisfaction, for example, may reasonably be expected to contribute to retention or revenue, but the magnitude and timing of the relationship may differ across sectors, customer categories, and competitive environments. Governance mechanisms must therefore permit hypotheses embedded in performance-measurement systems to be tested, revised, or rejected rather than treating management assumptions as permanent facts.

3.3 Subjectivity, Incentives, and Governance Risk

Nonfinancial measurement systems often contain more managerial judgment than standardized accounting measures. This flexibility enables organizations to incorporate qualitative strategic priorities and emerging operational conditions. At the same time, subjectivity can create inconsistent performance evaluation. Ittner, Larcker, and Meyer examined subjective weighting in a Balanced Scorecard environment and demonstrated that discretion in performance evaluation can materially influence how measures affect managerial assessment.

Agency theory provides an additional foundation for understanding this problem. Jensen and Meckling described the conflicts that can emerge when managerial interests differ from those of organizational principals. Performance metrics and incentive contracts can reduce some agency problems by connecting managerial rewards with desired outcomes. However, imperfect indicators can also produce unintended behavior when employees optimize measured performance rather than organizational value.

The governance of nonfinancial metrics must therefore balance flexibility and control. Excessively rigid measurement rules may prevent adaptation when strategy changes, while excessive discretion can undermine comparability and accountability. Effective governance requires controlled flexibility: metrics can evolve, but modifications should have documented rationale, accountable authorization, data continuity considerations, and explicit evaluation of behavioral consequences.

4. Research Methodology

4.1 Research Design

The study uses a simulation-based explanatory research design. No field survey, archival corporate database, or identifiable organizational record was used. The quantitative results represent a synthetic analytical environment developed to examine theoretical relationships among governance-related performance-measurement constructs.

A simulated sample of 260 hypothetical business-unit observations was created. Each observation represents an analytical case rather than a real organization. Constructs were represented on approximately five-point scales, with higher values indicating stronger presence of the measured characteristic. The approach allows theoretically plausible relationships to be explored without misrepresenting generated information as actual empirical evidence.

The dependent construct is Decision Usefulness of Nonfinancial Metrics, representing the degree to which the performance-measurement system is capable of supporting strategic evaluation, resource-allocation decisions, managerial learning, and responsible performance assessment. Five explanatory variables were incorporated into the model: metric governance quality, strategic alignment, data assurance, board or senior-level oversight, and incentive-distortion risk.

4.2 Construct Specification and Measurement Framework

Metric governance quality was modeled as the overall institutional discipline surrounding indicator definition, ownership, documentation, review, and change control. Strategic alignment represented the extent to which metrics correspond with significant strategic priorities. Data assurance captured reliability, traceability, consistency, and control over metric-producing information.

Board oversight represented the visibility and formal review of significant nonfinancial metrics by senior governance bodies. Incentive-distortion risk represented the possibility that rewards attached to indicators may produce gaming, selective attention, target manipulation, or substitution of metric achievement for actual strategic performance.

Table 1: Governance Constructs Incorporated in the Simulation

Construct	Governance Interpretation	Expected Relationship
Metric Governance Quality	Clarity of definitions, ownership, review, approval, and metric-change controls	Positive
Strategic Alignment	Degree to which metrics correspond with organizational strategic priorities	Positive
Data Assurance	Reliability, consistency, traceability, and validation of metric data	Positive
Board Oversight	Senior governance attention to important nonfinancial performance information	Positive
Incentive-Distortion Risk	Probability that metric-linked rewards encourage gaming or dysfunctional behavior	Negative
Decision Usefulness	Ability of metrics to support reliable strategic and managerial decisions	Outcome

4.3 Analytical Model and Ethical Treatment of Synthetic Data

The analysis also divided metric governance quality into quartiles to demonstrate whether the outcome variable changes progressively across weaker and stronger governance environments. This comparison was used for descriptive visualization rather than causal inference.

No human participants were recruited, and no personal, confidential, or commercially sensitive organizational information was processed. The simulated coefficients, significance values, and descriptive statistics therefore illustrate the behavior of a constructed analytical model only. They should not be interpreted as estimates of actual corporate populations.

5. Analysis

5.1 Overall Pattern of the Simulated Governance Model

The simulated analysis demonstrates a consistent relationship between the quality of governance surrounding nonfinancial metrics and their modeled decision usefulness. Cases with stronger metric definition, clearer responsibility, controlled revisions, greater strategic relevance, and more reliable underlying data generally produced higher decision-usefulness scores.

The relationship is important conceptually because it demonstrates that nonfinancial measurement should not be evaluated according to metric quantity. An organization with a large executive dashboard may possess less useful performance information than an organization with a smaller number of rigorously governed indicators. Ittner and Larcker similarly warned that organizations can accumulate numerous nonfinancial indicators without determining which genuinely support strategic outcomes.

5.2 Regression Results

Table 2 presents the simulated multiple-regression estimates. The model explains approximately 54.1% of the variance in decision usefulness, with an adjusted (R^2) of approximately .532.

Metric governance quality generates the strongest positive estimated coefficient. Data assurance and strategic alignment also retain meaningful positive relationships when all variables are entered simultaneously.

Table 2: Simulated Regression Predicting Decision Usefulness of Nonfinancial Metrics

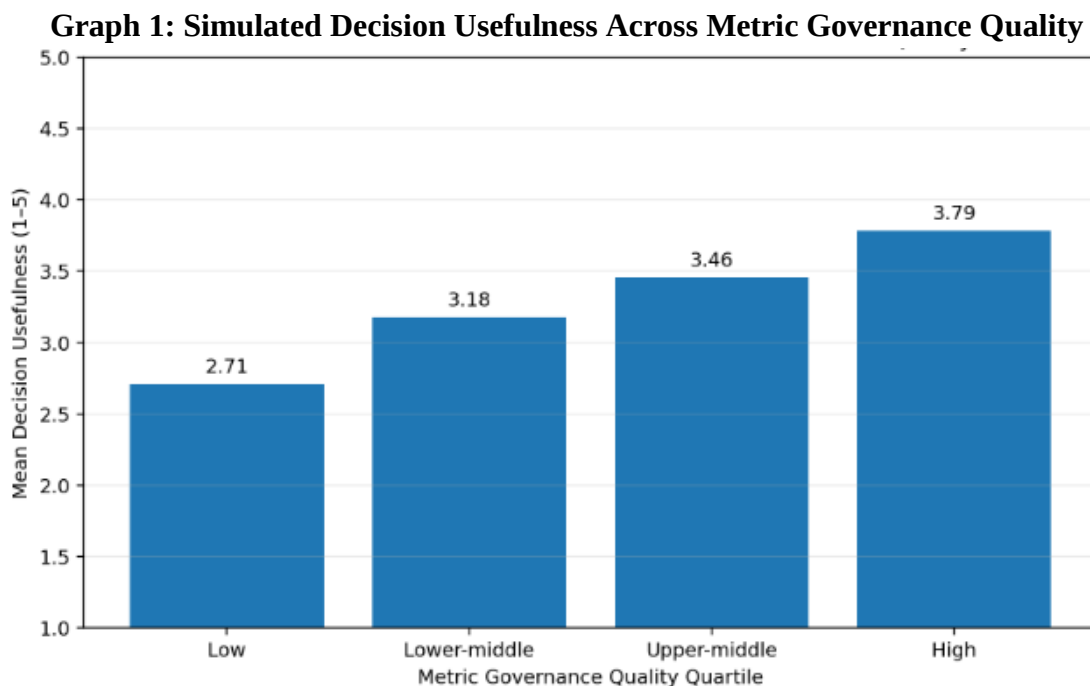
Predictor	B	Standard Error	t-value	Simulated p-value
Metric Governance Quality	0.382	0.050	7.625	< .001
Strategic Alignment	0.188	0.046	4.052	< .001
Data Assurance	0.234	0.042	5.581	< .001
Board Oversight	0.054	0.042	1.291	.198
Incentive-Distortion Risk	-0.228	0.044	-5.173	< .001

The coefficient of 0.382 for metric governance quality indicates that, within the simulation, a one-unit improvement in governance quality corresponds with an estimated 0.382-unit increase in decision usefulness when other variables are held constant. Data assurance contributes a coefficient of 0.234, while strategic alignment contributes 0.188. These results suggest that organizations obtain greater value from nonfinancial metrics when they combine strong institutional governance with credible data and demonstrable strategic relevance.

The negative coefficient of -0.228 for incentive-distortion risk indicates an opposing effect. As the possibility of metric gaming or dysfunctional incentive behavior rises, the decision usefulness of the system declines. This pattern supports earlier research showing that nonfinancial measures can improve incentive systems when they contain relevant information but may create problems when performance weights, causal assumptions, or evaluation practices lack adequate discipline.

5.3 Governance Quality Gradient

A quartile analysis provides a more accessible representation of the relationship. Hypothetical business units within the lowest metric-governance quartile produced an average decision-usefulness score of 2.71. The mean increased to 3.18 in the lower-middle quartile, 3.46 in the upper-middle quartile, and 3.79 in the highest-governance quartile.



The graph reveals a progressive improvement rather than a single threshold effect. The difference between the lowest and highest governance quartiles is approximately 1.08 scale points. Within the simulated model, therefore, governance quality appears to improve decision usefulness across successive stages rather than becoming relevant only after an organization reaches an advanced level of measurement maturity.

The practical meaning is significant. Early improvements such as defining metric ownership or standardizing calculations may already create benefits. More advanced practices—such as causal validation, independent assurance, controlled target revision, or systematic incentive-risk assessment—can subsequently deepen the reliability of the system.

6. Discussion

6.1 Governance Quality as the Foundation of Reliable Nonfinancial Measurement

The strongest relationship in the simulation concerns metric governance quality. This finding supports the argument that the primary challenge is not whether organizations should use nonfinancial measures, but whether those measures are governed with sufficient discipline. Financial accounting metrics typically operate within established definitions, accounting policies, reconciliation procedures, and audit structures. Many nonfinancial metrics possess no equivalent standardized infrastructure.

Governance can compensate for this limitation by establishing internal measurement constitutions. Every material metric should possess a documented definition, responsible owner, calculation method, reporting frequency, data source, approved target, escalation process, and review date. Changes to methodology should be recorded so that apparent performance improvement caused merely by definitional modification is not confused with genuine operational improvement.

An additional requirement is metric retirement. Performance systems often become unnecessarily complex because indicators continue to be reported after their strategic relevance has declined. Governance should authorize not only the addition of new indicators but also removal of obsolete measures. This prevents executive dashboards from becoming repositories of accumulated historical reporting practices.

6.2 Strategic Alignment, Data Assurance, and Causal Discipline

Strategic alignment and data assurance both remain significant in the simulated multivariable model. Their simultaneous importance demonstrates that measurement relevance and measurement reliability are distinct. A precisely calculated indicator provides limited strategic value when it measures something unimportant. Conversely, an indicator linked to an important strategic objective becomes unreliable when its data cannot be reproduced, traced, or validated.

This distinction is consistent with the Balanced Scorecard principle that nonfinancial measures should be derived from organizational strategy rather than collected as unrelated operational statistics. Kaplan and Norton emphasized the connection between strategic objectives and operational drivers, while Ittner and Larcker subsequently cautioned against assuming causal relationships without adequate analysis.

Organizations should therefore periodically test whether important nonfinancial measures behave as expected. If improved customer satisfaction is assumed to contribute to retention, managers should examine whether that association actually exists. If employee-training hours are treated as a proxy for capability development, the organization should determine whether the measure predicts competence, quality, productivity, or other intended outcomes. Governance requires the willingness to discontinue indicators when accumulated evidence fails to support their assumed strategic role.

Data assurance should similarly move beyond basic data completeness. Organizations need controls over data definitions, source-system integrity, manual adjustments, duplicate observations, outlier treatment, reporting-period consistency, and responsibility for correction. Where nonfinancial measures influence significant executive compensation or external communication, the standard of internal validation should become correspondingly stronger.

6.3 Incentive Distortion and the Limits of Formal Oversight

The negative relationship between incentive-distortion risk and decision usefulness highlights an important behavioral dimension. Performance indicators influence behavior because people respond to targets. When compensation, promotion, reputation, or managerial status depends heavily on a metric, individuals have stronger incentives to improve the reported indicator. Ideally, this produces behavior aligned with organizational strategy. However, when the metric is incomplete or manipulable, employees may instead optimize the indicator while weakening the underlying objective.

A customer-service unit evaluated exclusively on response speed may shorten calls at the expense of problem resolution. An innovation unit rewarded according to the number of product ideas may increase idea submissions without improving commercialization. A safety program driven entirely by recorded incident counts may unintentionally discourage reporting. These examples demonstrate that metric improvement does not always equal organizational improvement.

The relatively weak direct coefficient for board oversight should therefore not be interpreted as evidence that boards are irrelevant. Instead, the simulation suggests that oversight may be most useful when supported by strong operational governance. Boards cannot independently verify hundreds of nonfinancial indicators. Their role is more appropriately directed toward ensuring that management has established robust metric architecture, asking how critical indicators are defined and assured, challenging unexplained target revisions, and examining whether incentive arrangements create unintended behavioral consequences.

Governance bodies should also avoid creating false precision. Nonfinancial performance measures frequently contain estimation, judgment, survey error, definitional choices, and measurement uncertainty. Responsible reporting should communicate these limitations rather than presenting every indicator as an objectively exact representation of organizational reality.

7. Conclusion

Nonfinancial performance metrics have become an indispensable component of contemporary organizational control because financial statements alone cannot fully represent customer relationships, human capability, operational quality, innovation, safety, service reliability, learning, and other important drivers of organizational value. Their usefulness, however, depends on much more than their presence within dashboards, scorecards, or executive reports. Without adequate governance, nonfinancial metrics can introduce ambiguity, excessive subjectivity, inconsistent definitions, strategic distraction, data-quality weaknesses, and dysfunctional incentives.

The simulation presented in this study indicates that metric governance quality is the strongest positive predictor of modeled decision usefulness. Strategic alignment and data assurance provide additional positive contributions, while incentive-distortion risk produces a significant negative

relationship. These results reinforce the conceptual position that organizations should evaluate nonfinancial performance systems as governance architectures rather than collections of indicators. The central questions are who defines a metric, why it exists, how its data are produced, whether its assumptions are valid, how it affects managerial behavior, and who possesses authority to challenge or revise it.

The study also demonstrates why formal board oversight cannot substitute for operational measurement discipline. Senior governing bodies can establish expectations, challenge critical indicators, examine compensation consequences, and require assurance over strategically important metrics. Nevertheless, reliable governance ultimately depends on processes embedded throughout the organization, including clear ownership, standardized definitions, controlled data systems, periodic validation, transparent target setting, documented metric changes, and appropriate separation between measurement responsibilities and incentive interests.

Because the quantitative component relies entirely on simulated observations, the numerical estimates should not be generalized to real organizations. Future empirical research should test the governance framework using verified organizational datasets and should compare industries in which nonfinancial measures vary substantially in materiality and measurability.

Longitudinal research would be particularly valuable for determining whether stronger metric governance predicts subsequent strategic performance, improved managerial decision quality, reduced indicator manipulation, or stronger alignment between operational improvements and financial outcomes. Research could also examine how internal audit, assurance functions, boards, compensation committees, and digital performance-management technologies jointly influence the credibility of nonfinancial measurement. The broader conclusion remains that organizations derive value from nonfinancial metrics not by measuring more, but by governing measurement better.

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