

## Effectiveness of performance measurement in hybrid organizations A systematic literature review

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**Abstract:** This study investigates how performance measurement operates within hybrid organizations that balance competing institutional logics, stakeholder expectations, and regulatory demands. It aims to identify the key determinants influencing the effectiveness of performance measurement systems and propose a context-sensitive conceptual framework. A systematic literature review (SLR) was conducted using the Scopus and Web of Science databases, focusing on publications from 2020 to 2024. Thirty peer-reviewed studies were examined through a three-tiered coding process to classify the critical factors and emerging trends that shape performance measurement effectiveness. The review identifies four interrelated dimensions that collectively influence the reliability of performance measurement: governance structure, technical challenges, stakeholder engagement, and institutional dynamics. Persistent issues, such as fragmented accountability, inconsistent reporting, and regulatory rigidity, continue to hinder effective evaluations. An integrated, data-driven, and contextually grounded framework is required to strengthen adaptability, transparency, and stakeholder trust in hybrid performance measurement systems. This study offers actionable insights for policymakers, managers, and scholars to design more reliable, technologically enabled, and stakeholder-inclusive performance measurement models for hybrid organizations.

**Keywords:** *Accountability, Governance, Hybrid organization, Performance measurement, Stakeholder engagement.*

### 1. Introduction

Performance measurement in hybrid organizations is inherently complex due to the interplay of institutional logics, including bureaucracy, market forces, and social responsibility [1]. Diverse stakeholder expectations further complicate the definition and assessment of performance [2]. However, existing measurement systems often fail to capture these complexities, leading to fragmented evaluations, a lack of transparency in reporting, and an imbalance between financial and social performance metrics [3]. These challenges highlight the urgent need for a more integrated and adaptive measurement framework.

While models such as the Balanced Scorecard (BSC) and Triple Bottom Line (TBL) attempt to address performance measurement in hybrid organizations [4], they often lack the flexibility to accommodate regulatory changes and shift stakeholder priorities [5]. For instance, in the healthcare sector, performance metrics may create ethical conflicts among actors with competing interests [6]. Additionally, financial indicator-based systems frequently overlook critical social dimensions, weakening their applicability in hybrid settings [7]. Despite prior research, a comprehensive framework integrating key determinants of performance measurement effectiveness remains underdeveloped [8].

Conceptual and implementation challenges persist despite various approaches aimed at improving performance measurement in hybrid organizations. Regulatory compliance pressures often constrain measurement system flexibility, limiting innovation [9]. Although transparency enhances

accountability, excessive administrative burdens may reduce operational efficiency [10]. Financial and social indicators also remain difficult to integrate due to differing valuation methodologies [11]. Additionally, misalignment between performance metrics and strategic objectives persists, as hybrid organizations prioritize differently from purely commercial or nonprofit entities [12]. Fragmented accountability and the absence of standardized reporting frameworks further exacerbate measurement inconsistencies, making stakeholder interpretation unreliable [13].

Limited stakeholder participation in designing performance metrics weakens measurement legitimacy and increases the risk of data manipulation [6]. External pressures from regulators and strategic partners further restrict flexibility, preventing hybrid organizations from adapting their performance measurement systems to dynamic environments [13]. Addressing these challenges requires an integrated framework that balances regulatory, operational, and accountability dimensions to enhance measurement reliability. Future research should explore governance mechanisms that promote transparency while maintaining adaptability, as well as innovative methodologies to align performance metrics with hybrid organizations' strategic complexities [14, 15].

This study introduced an adaptive conceptual model that accommodates regulatory constraints, organizational complexity, and stakeholder engagement. However, implementation challenges remain crucial in determining the effectiveness of performance measurements. Frequent regulatory changes often create tensions between compliance requirements and operational flexibility, reducing the adaptability of measurement systems in hybrid organizations [16]. Evidence-based models that attempt to integrate financial and social goals continue to face methodological difficulties in defining objectively measurable indicators [7]. Moreover, without strong governance structures, performance measurement tends to be biased toward financial indicators, neglecting social and environmental dimensions fundamental to the TBL framework [15]. A more inclusive model is needed to balance financial and social objectives, particularly in public and nonprofit sectors with distinct governance structures [17].

This study underscores the critical role of transparency and accountability in reinforcing stakeholder trust and legitimacy in performance evaluation [17]. However, without standardized reporting frameworks, transparency alone may exacerbate accountability fragmentation, undermining the effectiveness of performance measurement [13]. Stakeholder engagement in developing performance indicators is essential to ensure alignment with organizational realities [6]. Future research should focus on designing performance measurement models that integrate operational complexity and multi-stakeholder interests while ensuring data credibility and reliability [14, 18]. These findings offer practical recommendations for policymakers, managers, and academics in developing more effective and sustainable performance evaluation systems for increasingly complex hybrid organizations.

## 2. Background

Hybrid organizations must simultaneously pursue economic efficiency and social impact, often resulting in conflicting performance indicators [19-21]. Performance measurement in these organizations is hindered by regulatory uncertainty, accountability fragmentation, and stakeholder conflicts, making the system vulnerable to manipulation [18]. Thus, an adaptive and comprehensive measurement system is needed to balance economic and social objectives.

Although models such as Balanced Scorecard (BSC) and Social Return on Investment (SROI) have been developed, their effectiveness in hybrid organizations remains debated due to their inability to align financial and non-financial indicators, particularly in measuring social impact and stakeholder satisfaction [22]. Furthermore, rigid regulatory pressures often hinder the flexibility of measurement systems, creating a gap between expected outcomes and applied metrics [23, 24]. This underscores the need for a more adaptive, integrative, stakeholder-sensitive measurement framework.

Further analysis reveals that existing models fail to address a fundamental paradox in hybrid organizations: the conflict between market-driven financial goals and mission-driven social objectives. This complexity demands a performance measurement system that is not only data-driven but also

flexible in adjusting strategies to environmental and organizational dynamics [25, 26]. Moreover, conventional metrics often fail to capture the broader systemic impact on hybrid organizations' performance [27].

This study aims to bridge this gap by identifying the key factors influencing performance measurement effectiveness in hybrid organizations and developing a more holistic and adaptive framework. It critiques inefficiencies in existing models and highlights the need for reforms that emphasize flexibility, transparency, and adaptability to external and internal dynamics [5, 28]. Without overhauling outdated measurement systems, hybrid organizations will continue to experience distortions in performance reporting and misaligned incentives.

Considering these challenges, this research not only evaluates the current model limitations but also formulates a future research agenda to develop data-driven, multi-stakeholder performance measurement methodologies. By integrating real-time analytics, stakeholder engagement models, and dynamic accountability mechanisms, this study aims to revolutionize performance evaluation systems in hybrid organizations. These findings are expected to serve as a foundation for innovative governance strategies and performance measurement frameworks that more accurately reflect the complexity of hybrid organizations [23, 25].

### 3. Research Method

This study adopts a systematic literature review (SLR) methodology [29, 30] to ensure transparency, rigor, and replicability. Unlike traditional narrative reviews, this approach systematically synthesizes evidence from multiple sources, offering a comprehensive understanding of the effectiveness of performance measurement in hybrid organizations. This study utilized SCOPUS and Web of Science to recognize databases in Accounting and Business disciplines to ensure the inclusion of high-quality, relevant literature. By integrating interdisciplinary perspectives from business, management, and public policy, this study provides deeper insights into the complexities of performance measurement in hybrid organizations.

The sample retrieval process (Step 1) involved searching for articles published between 2020 and 2024 using the keywords 'performance measurement' (Title) and 'hybrid organization' (All Fields). The search was refined to relevant categories in management, business finance, and economics, selecting only peer-reviewed open-access journal articles in English. The initial search yielded 29 articles; after removing duplicates, 28 articles remained. The final sample was expanded to 30 articles using a snowballing technique, ensuring a robust and comprehensive dataset that accurately reflects the latest developments in hybrid organizations' performance measurements.

In the article screening process (step 2), 56 articles were initially reviewed, excluding those irrelevant to performance measurement effectiveness. Recognizing the diverse terminology used in the literature, such as “outcome-based performance” and “impact measurement,” this study broadened its inclusion criteria to ensure thematic relevance. The final sample consisted of 30 articles selected based on their focus on performance system design, implementation challenges, and key success factors. This selection process maintained analytical rigor while capturing the fragmented, yet evolving landscape of performance measurement in hybrid organizations.

The coding and analysis phases (step 3) employed a three-tiered data-driven approach. At Level One, open coding identified key performance indicators, revealing seven primary factors and six performance metrics. At Level Two, a data extraction sheet facilitated coding, achieving an inter-rater reliability of 92.17%, leading to refined classifications and the emergence of three new factors: “Institutional Pressures,” “Conflict of Logics,” and “Measurement Adaptability.” The final validation improved the reliability to 95%, consolidating 15 factors into five overarching categories. At Level Three, these factors were mapped onto performance measures, demonstrating relationships such as the influence of “Institutional Pressures” on “Sustainability Performance” and “Dual Goals” on “Operational Efficiency.” The study’s findings underscore the need for adaptable and context-specific performance measurement frameworks for hybrid organizations.

## 4. Results and Discussion

This section presents the findings on the effectiveness of performance measurement and its influencing factors. Appendix D provides a descriptive overview of the performance measurement literature, including the research methods and theoretical perspectives employed.

### 4.1. Key Performance Measures in Hybrid Organizations

A literature review identifies seven key performance measures in hybrid organizations: Socio-Economic Balance, Good Governance & Trust, Measurement Accuracy & Reliability, Regulation & Performance Alignment, Stakeholder Interaction & Influence, Performance Evaluation Reliability, and Reporting & Accountability [5, 22, 31-33]. While some of these metrics resemble those used in other contexts, performance metrics in hybrid organizations have a broader scope. Socio-economic balance emphasizes the simultaneous achievement of social and economic goals [22, 32] such as integrating social program success with financial performance [5]. Measurement accuracy and reliability focus on consistency and transparency in performance recording and reporting, ensuring compliance with public and private sector regulations [31, 33]. Reporting & Accountability includes stakeholder transparency and engagement, a key characteristic of hybrid organizations [5]. Stakeholder interaction and influence serve as KPIs to assess the balance of social and economic interests and the system's adaptability. These metrics play a strategic role and are widely used by international organizations and donor agencies to evaluate the effectiveness of public programmes [22, 32, 33]. Overall, the performance metrics in hybrid organizations have unique characteristics that differentiate them from those used in purely commercial entities. To ensure conceptual clarity and analytical consistency, the seven key performance measures are summarized in Table 1. The table provides concise definitions for each measure, outlining their core dimensions and relevance to the hybrid organizational context. This systematic presentation serves as the foundation for the subsequent analysis of factors influencing performance measurement effectiveness.

**Table 1.**  
Defining the performance measures used in this study.

No.	Performance Measures	Definitions
1	Socio-Economic Balance	Balancing economic and social objectives.
2	Good Governance & Trust Accountability	Transparency, accountability, and stakeholder trust.
3	Measurement Accuracy & Reliability	Measurement accuracy and consistency.
4	Regulation & Performance Alignment	Regulatory compliance.
5	Stakeholder Interaction & Influence	Stakeholder engagement.
6	Performance Evaluation Reliability	Evaluation system credibility.
7	Reporting & Accountability	Transparency in reporting.

### 4.2. Factors Influencing the Effectiveness of Performance Measurement

Through a systematic literature review, this study identifies nine key factors influencing performance measurement effectiveness in hybrid organizations. These factors are categorized into four main groups: (1) Governance & Structure, (2) Technical Challenges, (3) Stakeholder Engagement, and (4) Institutional Dynamics. These categories represent different dimensions of performance evaluation and link them to specific metrics that reflect organizational effectiveness. To provide a clearer conceptual synthesis, these factors are systematically organized into an integrated classification framework, as presented in Table 2. The framework illustrates how the nine factors are distributed across the four main categories, offering a structured understanding of their interrelationships and relative influence on performance measurement outcomes. This tabular presentation not only enhances analytical transparency but also serves as the foundation for subsequent discussions that elaborate on each category in detail.

Governance and structure play a critical role in shaping performance measurement outcomes in hybrid organizations, where economic and social objectives must be integrated [32]. The complexity of balancing these goals necessitates performance measurement systems that account for governance dynamics and institutional pressures [1, 34, 35]. This category includes three elements: (1) dual goals, (2) governance issues, and (3) institutional pressures, which collectively influence the reliability of performance measurement.

Governance issues in hybrid organizations arise from fragmented accountability structures, which weaken performance measurement credibility, particularly in public and nonprofit sectors [5, 23, 36, 37]. Stakeholder trust is essential for ensuring legitimacy, yet bureaucratic and regulatory complexities hinder the adoption of standardized evaluation metrics [28, 38]. Balanced Scorecard (BSC) frameworks are commonly used to integrate financial and non-financial assessments, but implementation inconsistencies persist within frameworks [18, 32]. Non-standardized reporting and transparency issues further undermine measurement reliability, necessitating data-driven evaluation models [23, 39].

**Table 2.**

Classification framework of factors influencing performance Measurement effectiveness.

		<b>Socio-Economic Balance</b>	<b>Good Governance &amp; Trust</b>	<b>Measurement Accuracy &amp; Reliability</b>	<b>Regulation Performance &amp; Alignment</b>	<b>Stakeholder Interaction &amp; Influence</b>	<b>Performance Evaluation Reliability</b>	<b>Reporting &amp; accountability</b>
Governance & Structure	Dual Goals	Performance measurement is inherently complex, requiring an integrated framework like the Triple Bottom Line (TBL) to balance financial sustainability, social impact, and environmental responsibility efficiently [1, 18, 21, 32, 40].		Conflicts of interest and data uncertainty compromise performance measurement accuracy and reliability, requiring objective, data-driven frameworks to minimize bias and enhance credibility [1, 5, 24, 28].	Regulatory pressures and bureaucratic constraints challenge performance measurement in hybrid organizations, especially in higher education, where audit reforms complicate metric alignment with institutional objectives [1, 5, 22, 27].	Stakeholder engagement is vital for effective performance measurement in hybrid organizations, as collaboration ensures better metric alignment and enhances measurement systems [1, 5, 28, 41].	Performance evaluation reliability depends on structured frameworks like the Balanced Scorecard (BSC), yet hybrid universities face challenges due to inconsistencies between academic and commercial performance metrics [1, 5, 18, 19].	Fragmented public sector accountability and the lack of standardized transparency weaken reporting effectiveness, necessitating performance evaluations that integrate stakeholder satisfaction beyond financial metrics [1, 5, 23, 25].
	Governance Issues		Accountability fragmentation hinders the reliability of performance measurement in hybrid organizations, while transparency and stakeholder trust are key to ensuring credibility and legitimacy [1, 5, 23, 28].			Stakeholder collaboration is essential for enhancing performance measurement effectiveness, particularly in nonprofit and public sectors, while integrating stakeholders in supply chain metrics strengthens evaluation system reliability [1, 21, 28, 42].	Hybrid organizations employ the Balanced Scorecard (BSC) to integrate financial and non-financial performance, yet hybrid universities face challenges in maintaining consistent indicators due to misalignment between academic and commercial metrics [1, 5, 18, 19].	The absence of standardized reporting and transparency undermines performance measurement accuracy in hybrid organizations, necessitating the inclusion of stakeholder satisfaction beyond financial metrics for a more comprehensive evaluation [1, 5, 21, 23, 25, 28].
	Institutional Pressures		Strict regulations and public	Institutional conflicts between profit-driven			High stakeholder involvement drives	Inconsistent reporting standards

			expectations heighten the importance of transparency and stakeholder trust in performance measurement, where strong stakeholder confidence enhances effectiveness by reducing reliance on excessive bureaucratic controls [1, 5, 23, 28]	and social impact standards create inconsistencies in hybrid organizations, necessitating stronger reporting standards and data-driven methodologies for reliable and unbiased performance evaluation [1, 5, 24, 28].		hybrid organizations to adjust performance metrics to better align with stakeholder needs, while balancing public and private sector expectations presents challenges in establishing universally accepted performance indicators [1, 21, 28, 42]	in hybrid organizations can undermine stakeholder trust in performance measurement systems, while greater transparency in reporting enhances institutional legitimacy and responsiveness to regulatory pressures [1, 5, 23, 25]	non-standardized reporting erode stakeholder trust in performance measurement, whereas greater transparency enhances organizational legitimacy and reinforces confidence in evaluation metrics [1, 21, 23-25, 28, 43]
Technical Challenges	Measurement Challenges	Hybrid organizations struggle to develop indicators that effectively balance financial sustainability and social impact, as integrating economic, social, and environmental metrics into a standardized performance measurement system remains complex [1, 5, 18, 32, 44]	Fragmented accountability in performance measurement can create reporting inconsistencies, reducing stakeholder trust, while the lack of standardized transparency in performance data further weakens public and stakeholder confidence [1, 5, 23, 28]	Performance measurement in hybrid organizations is often compromised by data uncertainty and conflicts of interest, as inconsistent data collection standards lead to bias and inaccuracies in performance evaluation [1, 5, 24, 28, 45]		Limited stakeholder involvement in performance metric design can create gaps between expectations and actual outcomes, while diverging stakeholder interests further complicate the alignment of performance metrics across different groups [1, 21, 28, 42]		The lack of standardized reporting frameworks leads to inconsistencies in interpreting performance data, while limited access to reliable and real-time data hinders effective decision-making and accountability [1, 5, 23, 25]
	Ambiguity in Performance Metrics		The absence of standardized accountability frameworks in hybrid organizations weakens objective performance	Ambiguities in defining performance success in hybrid organizations lead to inconsistencies in evaluation, while non-standardized data undermines measurement accuracy,	Regulatory ambiguities in performance measurement create inconsistent interpretations in hybrid organizations, while public sector			The absence of standardized reporting frameworks in hybrid organizations leads to inconsistent performance interpretations, while

			measurement, erodes stakeholder trust, and increases the risk of indicator manipulation, undermining governance effectiveness [1, 5, 23, 28]	increasing the risk of bias in performance interpretation [1, 5, 24, 28]	policy reforms further complicate efforts to align performance indicators with evolving regulatory standards [1, 21-23, 27]			limited access to real-time data undermines transparency and the effectiveness of accountability systems [1, 21, 23, 25]
Stakeholder Engagement	Stakeholder Engagement		Limited stakeholder participation in performance metric design often results in data that fails to reflect organizational realities, while divergent internal and external stakeholder perspectives create ambiguity in defining performance measurement standards [1, 21, 24, 28]	Insufficient stakeholder participation in designing performance metrics leads to misaligned data, while conflicting internal and external perspectives create ambiguity in defining measurement standards [1, 21, 24, 28]	Regulatory mandates for stakeholder involvement in performance measurement are often obstructed by administrative challenges and rigid frameworks that fail to align with stakeholder expectations, limiting the inclusivity of evaluation systems [1, 5, 27, 46]			Limited stakeholder involvement in performance reporting reduces the effectiveness of accountability systems, whereas stakeholder-inclusive reporting frameworks enhance credibility and transparency in hybrid organizations [1, 5, 23, 25]
	Accountability Fragmentation	Hybrid organizations struggle with accountability fragmentation due to unclear standards for integrating financial, social, and environmental metrics within the Triple Bottom Line (TBL), leading to imbalanced performance evaluation [1, 5, 18, 32, 44]	The absence of an integrated accountability mechanism weakens governance effectiveness and stakeholder trust in performance measurement, while multi-stakeholder dynamics in hybrid organizations exacerbate conflicts in reporting and accountability systems [1, 5, 23,	Inconsistent performance accountability standards lead to misinterpretations among stakeholders, while unverified and non-standardized accountability data undermine the accuracy and reliability of performance measurement [1, 5, 24, 28, 47]				



			28]					
Institutional Dynamics	Institutional Pressures	Hybrid organizations face challenges in balancing financial sustainability with social responsibility, as institutional pressures and diverse stakeholder expectations create strategic conflicts that complicate performance measurement [1, 18, 21, 32, 44]	To sustain public trust amid growing regulatory pressures, hybrid organizations must strengthen governance and transparency, while active stakeholder involvement enhances accountability and governance effectiveness [1, 5, 23, 28, 48, 49]				The Balanced Scorecard (BSC) aligns hybrid organizations' performance evaluation with stakeholder and regulatory expectations, yet conflicts between academic priorities and industry demands hinder accurate and equitable measurement, especially in hybrid universities [1, 5, 18, 19, 50]	Fragmented accountability systems in hybrid organizations often lead to challenges in accurate performance reporting, while greater transparency in reporting operational outcomes enhances institutional legitimacy and stakeholder trust, particularly under regulatory pressures [1, 5, 23, 25, 50]
	Ambiguity in Performance Metrics	Hybrid organizations struggle to balance social impact and financial sustainability due to the lack of standardized frameworks within the Triple Bottom Line (TBL), creating ambiguities in performance evaluation [1, 18, 21, 32, 44]	Ambiguous performance metrics undermine transparency and credibility in hybrid organizations' accountability systems, while inconsistent interpretations erode stakeholder trust in evaluation frameworks [1, 5, 23, 28]			Divergent stakeholder expectations create uncertainty in defining universal performance standards, while imbalanced demands undermine the reliability of evaluation systems in mission-driven hybrid organizations [1, 5, 28, 42]	Hybrid organizations struggle to balance financial and social performance metrics, while disputes over objective evaluation criteria undermine measurement reliability and the credibility of assessment frameworks [1, 5, 18, 19, 51, 52]	Inconsistent reporting standards hinder performance comparability, while limited access to high-quality data reduces transparency and weakens accountability [1, 5, 23, 25]

Institutional pressures from regulators, investors, and the public complicate the establishment of performance metrics that balance financial and social objectives [21, 32]. Strict regulations and high stakeholder expectations create barriers due to inconsistencies in reporting standards and evaluation practices [23]. Research highlights that stakeholder trust and regulatory flexibility improve measurement effectiveness [22, 28, 47, 51, 52]. However, conflicts between profit-driven and social impact standards create further inconsistencies [21, 24], emphasizing the need for harmonized policies and data-driven methodologies. [28].

Technical challenges arise in developing performance indicators that equitably measure financial sustainability and social impact. The integration of economic, social, and environmental factors into standardized measurement frameworks remains complex [18, 32]. The absence of standardized accountability frameworks increases the risk of data manipulation and weakens governance effectiveness [25]. Additionally, diverse stakeholder expectations between the public and private sectors further complicate the establishment of consistent performance measurement models [28, 38].

Stakeholder engagement is crucial for effective performance measurement, yet misalignment between stakeholder expectations and economic realities complicates the development of balanced evaluation frameworks [18, 32]. The lack of standardized evaluation criteria creates challenges in reaching a consensus on performance indicators [28, 38]. A participatory, data-driven approach is necessary to ensure that measurement systems reflect both financial sustainability and social objectives, and to enhance accountability and transparency.

Institutional dynamics significantly influence the ability of hybrid organizations to balance financial viability with social impacts [18, 32]. Variability in regulatory frameworks and inconsistent performance standards contribute to the uncertainty in measurement reliability [5, 24]. Implementing standardized evaluation systems such as the Balanced Scorecard (BSC) helps align stakeholder expectations with regulatory requirements and improves overall performance measurement effectiveness [18, 42].

#### *4.3. A Future Performance Measurement Research Agenda*

This study not only develops a classification framework for factors influencing performance measurement effectiveness in hybrid organizations but also identifies critical knowledge gaps that warrant further research in accounting, performance management, and public policy. Four key recommendations are proposed to refine and expand the existing framework (Table 2), particularly emphasizing underexplored factors and their impact on measurement effectiveness.

Sustainability and measurement reliability should be considered as additional dimensions in evaluating performance measurement effectiveness and accountability in hybrid organizations. Further exploration of regulatory and institutional pressures, such as accountability system fragmentation, inconsistent reporting standards, and differing performance priorities between the public and private sectors, could provide valuable insights into how hybrid organizations adapt performance measurement frameworks over time.

#### *4.4. Recommendation 1: Unexplored Factors and Their Relationship with Performance Measurement Effectiveness*

Performance measurement in hybrid organizations must balance economic and social objectives while ensuring efficiency and accountability [32]. Governance is critical for enhancing transparency and reducing information asymmetry [21]. Yet research has primarily examined governance alignment in business and government sectors, with limited focus on hybrid organizations [44]. Misalignment among governance, regulation, and accountability can hinder performance measurement effectiveness and stifle innovation [53].

#### 4.4.1. Proposition 1a: Effective Governance Enhances Performance Measurement Effectiveness in Hybrid Organizations

Governance in hybrid organizations ensures operational sustainability and resource efficiency while balancing financial and social objectives [32]. A structured governance system facilitates the development of accurate performance indicators [21]. However, hybrid governance models remain underexplored [44]. Greater stakeholder participation in governance could improve transparency and reduce imbalances in performance measurement [42].

#### 4.4.2. Proposition 1b: Consistent and Flexible Regulation Improves Performance Measurement Reliability

Regulations provide a legal framework for hybrid organizations, but rigid policies may limit adaptability in designing effective measurement systems [28]. Frequent regulatory changes create uncertainty in evaluation standards, reducing measurement effectiveness [54]. Inconsistencies between public and private sector regulations further complicate standardization [22]. Outcome-based regulations could improve measurement reliability, and future research should explore how hybrid organizations navigate evolving regulatory environments.

#### 4.4.3. Proposition 1c: Transparent Accountability Strengthens Trust and Performance Measurement Effectiveness

Accountability is fundamental to stakeholder trust and transparency [55], yet hybrid organizations face challenges in defining objective accountability indicators [56]. Weak accountability systems can erode public trust, making it difficult to secure funding or policy support [57]. Future studies should explore stakeholder-driven, technology-based accountability systems that utilize real-time data for performance evaluation.

#### 4.4.4. Recommendation 2: Enhancing the Quality and Reliability of Performance Measurement

Hybrid organizations struggle to ensure reliable performance evaluations due to competing financial and social objectives, creating uncertainty in selecting appropriate indicators [32]. Their diverse stakeholder base necessitates flexible, data-driven evaluation systems capable of adapting to strategic shifts [5]. Therefore, technology-based measurement models are necessary to enhance reliability and strategic decision-making [28].

#### 4.4.5. Proposition 2a: Improving Performance Measurement Reliability through Data-Driven Models

Traditional performance measurement models remain static and fail to adapt to operational changes [44]. A more flexible, multi-dimensional evaluation framework should integrate sustainability and social impact [58]. Many hybrid organizations still rely on non-data-driven methods, leading to biased evaluations [54]. AI and big data analytics could enhance accuracy and credibility in performance measurement [22].

#### 4.4.6. Recommendation 3: Stakeholder Integration and Transparency in Reporting

Hybrid organizations require active stakeholder engagement and standardized reporting frameworks to ensure accountability and trust [32]. However, inconsistent reporting standards and differences in data interpretation create significant challenges [5]. Standardized frameworks and participatory approaches could enhance transparency and ensure that performance indicators balance social and economic objectives [28].

#### 4.4.7. Proposition 3a: Stakeholder Integration and Transparency Enhance Performance Measurement Effectiveness

Diverse stakeholder expectations make performance measurement in hybrid organizations particularly complex [44]. Without active engagement, organizations struggle to produce reports that accurately reflect their economic and social performance [42]. The adoption of standardized

frameworks such as Integrated Reporting (IR) and Triple Bottom Line (TBL) could improve credibility and consistency in reporting [59]. Blockchain technology and real-time reporting systems could further enhance transparency and minimize data manipulation [57].

#### *4.4.8. Recommendation 4: Balancing Social and Economic Objectives in Performance Measurement*

Hybrid organizations face a fundamental challenge in measuring both social impact and financial sustainability. Traditional performance measurement models prioritize financial metrics, making social outcomes difficult to evaluate [32]. Overemphasizing efficiency can undermine social impact, while focusing solely on social outcomes may weaken competitiveness [5]. Future research should explore multi-dimensional measurement approaches that align social and economic objectives.

#### *4.4.9. Proposition 4a: Balancing Social and Economic Objectives Enhances Hybrid Organizations' Effectiveness*

Hybrid organizations must align profit-driven goals with social missions [28]. However, existing performance models primarily rely on financial metrics, often neglecting social impact [54]. A more holistic, multi-dimensional approach incorporating both financial and sustainability indicators is needed. Frameworks such as the Triple Bottom Line (TBL) and Balanced Scorecard (BSC) provide a more comprehensive evaluation method [22].

The flexibility of performance measurement systems is crucial in hybrid organizations. Rigid evaluation models may not account for the unique dynamics of hybrid organizations, stifling innovation and misaligning priorities [57]. Therefore, hybrid organizations should implement adaptive, data-driven measurement frameworks that integrate real-time assessments of economic and social objectives.

Future studies should examine how hybrid organizations can integrate adaptive, technology-driven performance measurement systems to balance financial sustainability with social impact. The adoption of multi-dimensional performance frameworks, increased flexibility in evaluation models, and the utilization of AI and big data analytics could significantly improve performance assessment accuracy and accountability. Further exploration of these strategies across different sectors will provide valuable insights into their effectiveness and long-term sustainability.

## **5. Conclusion**

This study explores the effectiveness of performance measurement in hybrid organizations, which must balance social and economic objectives while navigating diverse stakeholder interests and regulatory pressures. The study delineates four principal categories that affect the efficacy of performance measurement: governance and organizational structure, technical challenges in measurement, stakeholder engagement, and institutional dynamics. The primary contribution of this study is the development of a classification framework that connects these factors to performance measurement effectiveness. It emphasizes that there must be a flexible, data-driven approach that accommodates multiple stakeholder interests without compromising accountability and transparency. Models such as the Triple Bottom Line (TBL) and Balanced Scorecard (BSC) are preferred over traditional financial metrics, as they better capture the balance between social impact and economic sustainability.

Despite its contributions, this study has certain limitations. The data scope is restricted to peer-reviewed journal articles, excluding policy reports and industry documents that might offer broader insights. Additionally, while it identifies key influencing factors, it does not explicitly examine their interrelationships, such as how governance strengthens reporting accountability or how regulatory frameworks shape performance standards in hybrid organizations. The findings demonstrate the importance of more adaptive performance measurement models that consider operational efficiency alongside organizational legitimacy. Future research should explore the interconnections between these factors and investigate technology-based solutions, such as artificial intelligence and big data analytics, to enhance accuracy and transparency in performance evaluation. Further studies could also focus on customizing performance measurement systems across various hybrid sectors, including education,

healthcare, and community-based organizations, ensuring more inclusive, accountable, and evidence-based evaluation frameworks.

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### Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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