

Organizational Performance as A Systemic Construct*

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Abstract

This study reconceptualizes organizational performance through the lens of systems thinking, arguing that conventional financial and efficiency-based approaches are increasingly inadequate for capturing the complexity of contemporary organizations. In response, this study develops a systemic conceptualization of performance as a multidimensional and emergent construct.

Drawing on classical and contemporary contributions to systems theory, the analysis conceptualizes the organization as a complex sociotechnical system composed of interdependent subsystems embedded within dynamic environments. Within this framework, performance is not treated as a static outcome but as a dynamic property emerging from continuous interactions between internal structures and external conditions.

This article examines the evolution of performance theories, from traditional financial models to multidimensional frameworks such as the Competing Values Framework, and discusses contemporary measurement approaches, including the Balanced Scorecard and sustainability-oriented frameworks. It ultimately proposes a systemic conception of performance structured around a viability-performance matrix, emphasizing feedback loops, adaptive capacity, and structural tensions between stability and flexibility. This study contributes to management theory by bridging systems thinking and performance literature, with implications for organizational design, governance, and sustainability-oriented management.

Keywords: Systems theory, internal organization, organizational performance, management.

JEL Classification: B52, D23, M10, M15.

Introduction

Over the past few decades, organizations have evolved in increasingly complex, uncertain, and interconnected environments shaped by globalization, technological acceleration, and growing societal expectations. These transformations have challenged traditional managerial paradigms that rely on stability assumptions, linear causality, and reductionist forms of analysis, limiting their capacity to account for the dynamic and systemic nature of contemporary organizational phenomena.

Within this context, organizational performance has emerged as a key, but contested, concept in management research. Historically, performance has been dominated by financial and efficiency-based metrics and has long been considered a measurable and objective outcome. However, this narrow conception has been increasingly questioned because it fails to capture the multidimensional, socially constructed, and context-dependent nature of performance (Quinn and Rohrbaugh, 1983; Le Moigne, 1995). Contemporary research emphasizes that

performance is a constructed and evolving judgment shaped by multiple evaluative frameworks and stakeholder perspectives.

In response, systems thinking has emerged as a powerful theoretical lens for understanding the complexity of organizations. Rooted in Von Bertalanffy's (1968) work, this approach conceptualizes organizations as open systems composed of interdependent subsystems in continuous interaction with their environment, emphasizing relationships, feedback loops, emergence, and co-evolution.

Building on this perspective, this article argues that organizational performance should be reconceptualized as a systemic construct emerging from interactions between organizational subsystems and their environment: multidimensional, dynamic, and context-dependent rather than reducible to a single indicator.

The remainder of this article is structured as follows: Section 1 presents the foundations of systems thinking; Section 2 analyzes the firm as a complex sociotechnical system; Section 3 examines the evolution of performance theories; Section 4 discusses measurement frameworks; and Section 5 proposes a systemic conception of performance and its implications.

Foundations of Systems Thinking

Systems thinking has progressively emerged as a significant theoretical framework for addressing complexity in organizational research, reflecting a broader epistemological shift away from reductionist and linear modes of explanation toward relational, dynamic, and integrative forms of analysis. Rather than isolating variables, it emphasizes patterns of interaction, feedback loops, and emergent properties that shape organizational behavior over time.

The Concept of System

The concept of a system is characterized by persistent conceptual plurality across disciplines. Derived from the Greek *sustema*, Donnadiu et al. (2003) define it as referring to a "coherent whole," and it functions as a boundary object whose meaning varies according to epistemological traditions. Von Bertalanffy's general system theory (1968) defines a system as "a set of interacting elements", introducing a fundamental epistemological shift: the unit of analysis becomes the pattern of interactions among elements, rather than isolated components. Subsequent contributions enriched this foundation: De Rosnay (1975) highlighted the dynamic and purposive nature of systems, Odum (1975) emphasized functional coherence as the basis of systemic identity, and Le Moigne (1977) proposed a constructivist definition articulating four interdependent dimensions (structure, purpose, activity, and evolution) thereby shifting systems thinking toward a processual epistemology.

Checkland (1981) further challenges the operational validity of system boundaries by distinguishing between hard systems, whose boundaries are assumed to be objective, and soft systems, whose boundaries are negotiated and context-dependent. This distinction is particularly relevant for organizational analysis, where boundaries are often socially constructed and evolve.

Open Systems and Complexity

The distinction between open and closed systems constitutes a central analytical shift in system thinking. Open systems are defined by continuous exchanges of matter, energy, and information with their environment, making them inherently dynamic, adaptive, and context dependent. In organizational contexts, these interactions are not merely peripheral but are constitutive of organizational functioning, shaping resource acquisition, strategic positioning, and knowledge production.

This openness introduces a fundamental epistemological consequence: organizations can no longer be understood using deterministic or linear models. Von Bertalanffy's (1968) concept of equifinality (the idea that identical final states can be reached through multiple pathways) directly challenges efficiency-based models that assume a single optimal trajectory. As Senge (1990) argues, organizational problems are fundamentally systemic and cannot be adequately addressed through fragmented intervention. Consequently, systems thinking shifts from control-oriented logic to learning-oriented and adaptive logic, where feedback processes become the central mechanisms of organizational adjustment.

From Cybernetics to Complexity Theory

The development of systems thinking reflects a cumulative epistemological transformation across the three generations. The first, grounded in classical cybernetics, focuses on stability, regulation, and homeostatic control through feedback mechanisms. Second, associated with second-order cybernetics and Checkland's soft systems methodology (1981), positioned the observer as part of the system itself, introducing reflexivity and learning as central dimensions. Le Moigne (1990) further emphasized the constructive nature of organizational knowledge, where systems are actively modeled rather than merely observed in the literature. The third generation, influenced by complexity theory and Morin (1990), emphasizes non-linearity, unpredictability, and co-evolution, and conceptualizes organizational systems as dynamic processes of continuous reconfiguration rather than entities seeking equilibrium.

This progression, from externally controlled systems to interpreted systems to emergent and self-organizing systems, establishes the conceptual foundation for understanding organizations as complex adaptive systems embedded in evolving environments.

Organizations as complex systems

Based on systems thinking, organizations can be conceptualized as complex adaptive systems characterized by dynamic interactions, structural interdependence, and continuous adaptation. Organizational behavior cannot be reduced to the sum of individual functions; it results from the continuous interaction between social, technical, informational, and institutional dimensions that jointly shape the organizational outcomes. Consequently, performance, coordination, and viability are not predetermined properties but emergent outcomes of interaction patterns across multiple levels of analysis.

Organizations as sociotechnical systems

The sociotechnical perspective explicitly rejects the separation between the social and technical dimensions of organizational functioning, conceptualizing them as mutually constitutive components of a unified system. Originally developed through the empirical work of the Tavistock Institute, this approach demonstrated that organizational effectiveness cannot be achieved through the optimization of technical systems alone or through an exclusive focus on social coordination (Trist and Bamforth, 1951). The concept of joint optimization, formalized by Emery and Trist (1960, 1965), holds that social arrangements and technical infrastructures must be designed in relation to one another; performance emerges from their continuous interaction rather than from either component in isolation.

From a systemic perspective, Von Bertalanffy (1968) and Katz and Kahn (1966) suggest that interactions between human and technical elements generate emergent properties that are irreducible to either component. Changes in technology, work organization, or managerial practices trigger feedback effects across multiple levels, making sociotechnical systems inherently adaptable. This co-evolutionary logic reinforces the broader systems thinking perspective: Teece, Pisano and Shuen (1997) argue that organizational performance depends on the capacity to maintain functional integration while adapting to internal and external changes.

Organizational subsystems and viability

From a systems perspective, organizations can be understood as configurations of interdependent subsystems, whose coordinated functioning determines overall viability. Beer (1972) conceptualizes this through five interacting subsystems in the Viable System Model (VSM): operations (primary activity execution), coordination (alignment across units), control (performance monitoring and feedback), intelligence (environmental scanning and strategic adaptation), and policy (organizational identity and governance).

Within this architecture, viability is not a static property but an emergent condition that results from continuous interactions between subsystems. Disruptions in one subsystem propagate throughout the organization, illustrating the systemic nature of organizational functions. Critically, this model challenges hierarchical conceptions of control by emphasizing distributed regulation and multi-level feedback mechanisms. Organizational performance is thus inseparable from viability: it depends not solely on production efficiency but on the system's capacity to maintain coherence and adaptability across subsystems in response to environmental change.

Environment and organizational interactions

From a systemic perspective, the environment constitutes an integral dimension of organizational systems, rather than a mere external backdrop. Organizations operate through continuous exchanges of resources, information, and legitimacy with their institutional, economic, and social environments. Von Bertalanffy (1968) argues that such exchanges are recursive rather than linear, while Emery and Trist (1965) demonstrate that they progressively shape organizational structures and strategic orientations over time.

Environmental complexity introduces uncertainties that challenge traditional models of rational planning. Adaptive capacity, which is closely associated with organizational learning, enables systems to reinterpret environmental signals and modify behaviors accordingly, as demonstrated by Argyris and Schön (1978) and further developed by Senge (1990).

This process is co-evolutionary: Morin (1990) suggests that organizations and environments evolve jointly through recursive interactions, making survival dependent not only on internal efficiency but also on maintaining alignment with shifting external conditions.

Therefore, organizations must develop dynamic stability, that is, the capacity to maintain coherence while continuously adjusting to environmental variations.

Organizational performance: theoretical evolution

Organizational performance has undergone a significant conceptual shift, moving from a predominantly financial and efficiency-based metric to a more pluralistic and context-dependent construct. This section traces this evolution, arguing that performance should be understood as a contested and multidimensional construct, structured by competing evaluative logics.

Limitations of traditional performance approaches

For a long period, organizational performance was predominantly assessed through financial and accounting-based indicators such as profitability, productivity, and return on investment, rooted in classical theories that conceptualize organizations as rational systems oriented toward efficiency maximization. Within this paradigm, performance is treated as a largely objective and quantifiable outcome that reflects effective internal managerial control.

However, this reductionist conception has been increasingly challenged. De La Villarmois (2001) emphasizes that performance constitutes a complex and inherently multidimensional construct inadequately captured through quantitative indicators alone. Quinn and Rohrbaugh (1983) argue that its meaning depends on the evaluative criteria and analytical frameworks adopted, while Le Moigne (1995) highlights that performance measurement cannot be separated from the interpretive frameworks through which organizational reality is assessed.

Three major limitations emerge from this study. First, traditional approaches privilege financial outcomes at the expense of non-financial dimensions, such as organizational learning, stakeholder satisfaction, and environmental impact. Second, they rely on a static view of performance that insufficiently captures its dynamic characteristics. Third, they assume a level of controllability that is increasingly inconsistent with the uncertainty of contemporary organizational environments. These limitations pave the way for more integrative frameworks, among which the Competing Values Framework represents a significant theoretical advancement.

The Competing Values Framework (CVF)

The Competing Values Framework (CVF), developed by Quinn and Rohrbaugh (1983), conceptualizes organizational performance as a multidimensional and internally contradictory concept. Rather than assuming a single dominant definition of effectiveness, it explicitly recognizes that organizations operate under multiple competing evaluative logics. The framework is structured around three analytical dimensions : internal versus external orientation, stability versus flexibility, and means versus ends, generating four archetypal performance perspectives.

The rational goal model emphasizes productivity, efficiency, and goal attainment. The internal process model focuses on stability, standardization, and procedural controls. The open systems model conceptualizes performance in terms of adaptability, innovation, and environmental resource acquisition. The human relations

model prioritizes cohesion, participation, and employee development. Together, these four models illustrate that organizational performance cannot be reduced to a single coherent definition but emerges from the coexistence of multiple evaluative criteria reflecting different organizational logics and stakeholder expectations.

A systemic reading of the Competing Values Framework (CVF)

The CVF can be further enriched through systemic interpretation. The tension between internal and external orientation reflects the systems theory distinction between closure and openness, as articulated by Von Bertalanffy (1968): organizations must simultaneously preserve internal integration and maintain adaptive responsiveness to external constraints. The tension between stability and flexibility reflects the interplay between homeostatic regulation and control mechanisms that ensure systemic coherence, on the one hand, and adaptive transformation driven by learning and innovation, on the other (Senge, 1990).

From this standpoint, performance emerges as a dynamic equilibrium produced by continuous adjustments across multiple system levels, consistent with the cybernetic principles of circular causality and self-regulation, as theorized by Beer (1972) and Morin (1990). Thus, the four CVF models are best understood not as mutually exclusive alternatives but as partial representations of a broader systemic reality. Organizations continuously oscillate between these logics depending on internal conditions and environmental pressures, making performance the capacity to manage and integrate competing demands over time rather than optimizing a single dimension in isolation.

Measuring performance from a systemic perspective

The evolution of organizational performance toward a multidimensional construct has significant implications for measurement. Traditional measurement systems, grounded in financial accounting and short-term efficiency indicators, appear increasingly insufficient for capturing contemporary organizational complexity. From this perspective, performance measurement is no longer a purely technical exercise but a strategic and interpretive process embedded in broader systems of governance, learning and adaptation.

Balanced Scorecard and multidimensional performance measurement

The Balanced Scorecard (BSC), introduced by Kaplan and Norton (1992), remains one of the most influential frameworks for multidimensional performance evaluation. Built around four interrelated perspectives, financial performance, customer satisfaction, internal processes, and learning and growth, it represents a deliberate effort to broaden organizational assessment beyond short-term accounting metrics.

From a systemic standpoint, the BSC's most significant contribution lies in its emphasis on causal interdependencies between performance dimensions, echoing the feedback logic characteristic of systems thinking, as developed by Senge (1990). However, this logic remains partial. Morin (1990) argues that the causal chain it proposes is largely linear and sequential, underestimating the recursive and non-linear dynamics that characterize complex organizational systems. Furthermore, Atkinson et al. (1997) note that external stakeholders, environmental pressures, and social legitimacy remain at the margins of its evaluative structure, limiting its capacity to reflect the full scope of organizational interdependencies. Finally, Checkland (1981) observes that by treating performance dimensions as fixed categories, the BSC leaves little room for emergent indicators shaped by the organization's evolving relationship with its environment. Taken together, these limitations position the BSC as a transitional framework: it meaningfully extends performance measurement beyond financial indicators but stops short of fully embracing the adaptive and emergent logic that a systemic conception requires.

Global performance and sustainable development

The increasing importance of sustainability has led to the concept of global performance, which integrates economic, social, and environmental dimensions into a unified evaluative framework. Figge et al. (2002) emphasize that traditional financial metrics are insufficient to capture these multidimensional impacts, while Hubbard (2009) highlights the persistent difficulty in integrating non-financial dimensions into coherent measurement systems.

The OECD (2019) identifies six key criteria for assessing performance in complex contexts: relevance, coherence, effectiveness, efficiency, impact, and sustainability, reflecting a shift toward systemic and life-cycle-oriented evaluation logics that extend analysis beyond organizational boundaries into broader socio-economic ecosystems.

Corporate social responsibility as a systemic approach

Corporate Social Responsibility (CSR) can be interpreted as a concrete institutional expression of systemic thinking. At its core, CSR reframes an organization as an open system accountable to a broader set of stakeholders whose interests are affected by organizational activities.

This stakeholder-oriented perspective extends performance evaluation beyond financial value creation to include resource preservation, social equity, and long-term sustainability, consistent with Morin's (1990) systemic view that value creation emerges from interactions between multiple actors rather than isolated organizational decisions.

Thus, CSR contributes to the institutionalization of systemic performance thinking by formalizing the idea that organizational effectiveness is inherently relational, distributed, and temporally extended.

Towards performance as a systemic construct

The cumulative evolution of performance theories and measurement frameworks suggests an epistemological transformation: performance is increasingly conceived not as a stable and objectively measurable outcome but as an emergent, context-dependent, and structurally embedded construct.

This shift reflects broader developments in systems thinking and complexity theory, developed notably by Von Bertalanffy (1968) and Morin (1990), which emphasize interdependence, non-linearity, and co-evolution as the defining features of organizational phenomena.

Multidimensional and emergent performance

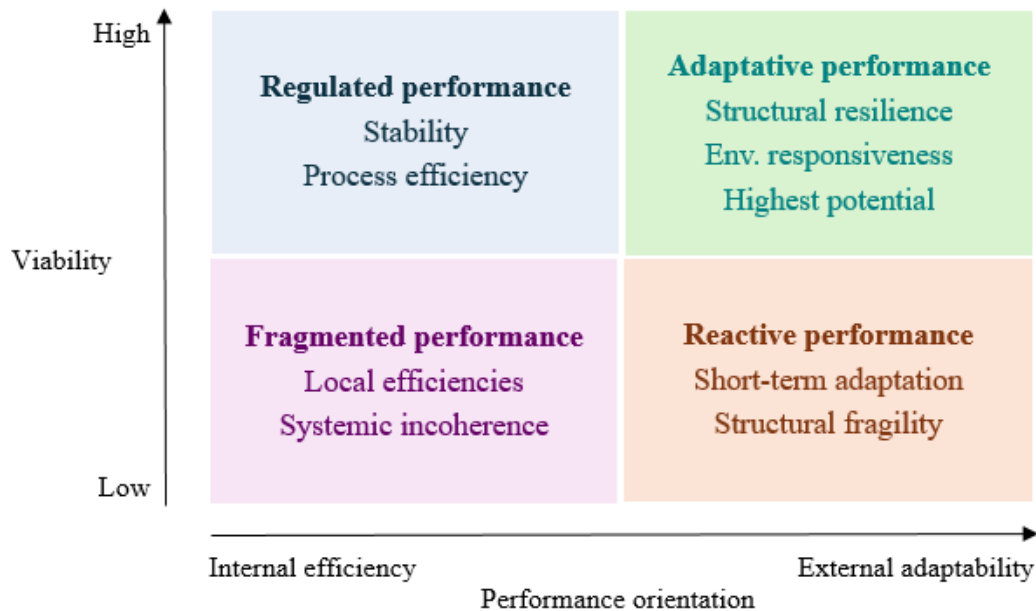
Systems thinking leads to a fundamental reconceptualization of organizational performance as a multidimensional and emergent phenomenon. Morin (1990) suggests that, rather than representing a fixed target, performance should be understood as the outcome of dynamic interactions among heterogeneous organizational components, including resources, capabilities, governance structures, stakeholder relationships, and environmental conditions. From this perspective, performance is not a static state that can be fully captured through isolated indicators but a continuously evolving property arising from the functioning of the organizational system as a whole.

Building on Beer's Viable System Model (1972) and the Competing Values Framework (Quinn and Rohrbaugh, 1983), we propose a viability-performance matrix that integrates two fundamental dimensions of organizational functioning. The vertical axis represents organizational viability, defined as the capacity to maintain internal coherence and adaptive regulation across organizational subsystems, including resources, governance arrangements, structures, and stakeholder relationships. The horizontal axis represents performance orientation, that is, the dominant evaluative logic ranging from internal efficiency, focused on the optimization of existing processes, to external adaptability, emphasizing responsiveness to environmental opportunities and constraints. The intersection of these dimensions generates four systemic configurations of organizational performance:

- Regulated performance (high viability, internal orientation) : characterizes organizations with strong internal coherence that prioritize process control, coordination, and structural stability. These organizations tend to achieve reliable and efficient operations but may be less sensitive to environmental changes and emerging external demands.
- Adaptive performance (high viability, external orientation) : represents the configuration with the greatest systemic potential within the proposed framework. It combines organizational resilience with environmental responsiveness, enabling the organization to preserve internal coherence while continuously adapting to changing conditions. Such organizations are both robust and agile, allowing them to sustain performance over time in complex and uncertain environments.
- Fragmented performance (low viability, internal orientation) : emerges when localized efficiencies achieved within departments, units, or functions fail to translate into overall organizational coherence. In this configuration, partial optimizations coexist without generating effective systemic integration, limiting the organization's capacity to produce sustainable collective outcomes.

– Reactive performance (low viability, external orientation) : describes organizations that continuously adjust to short-term environmental pressures without maintaining sufficient internal coordination. While such organizations may display temporary adaptability, repeated responses to external demands can gradually undermine structural integrity and long-term stability.

Figure 1. The viability-performance matrix: four systemic configurations of organizational performance.



Source: authors' own elaboration

The matrix crosses organizational viability (vertical axis: VSM-based structural integrity) with performance orientation (horizontal axis: internal efficiency vs. external adaptability), generating four analytically distinct configurations. The north-east quadrant (adaptive performance) represents the configuration of highest systemic potential.

The matrix does not prescribe a single optimal configuration but highlights the dynamic tensions that organizations must navigate between internal coherence and environmental adaptation. In this systemic sense, performance is conceived as a continuous process of repositioning across configurations in response to internal and external changes.

This reconceptualization carries important managerial implications. Following Argyris and Schön (1978), it suggests that sustainable performance depends not only on the achievement of operational objectives but also on the development of organizational learning capacities, distributed governance mechanisms, and the integration of sustainability considerations into strategic decision-making. From an operational perspective, the framework may be implemented through multidimensional performance dashboards, institutionalized feedback processes, and scenario-based simulation tools designed to support adaptive organizational regulation.

Managerial implications

The reconceptualization of performance as a systemic construct has significant implications for management practices. First, Senge (1990) argues that it challenges fragmented approaches to decision-making, requiring managers to account for circular causality and second-order effects across organizational subsystems.

Second, Argyris and Schön (1978) highlight the importance of organizational learning: effective organizations are not necessarily those that optimize static efficiency but those capable of continuously interpreting environmental signals and transforming their internal structures accordingly. Third, Beer (1972) redefines governance as a distributed process embedded in multiple organizational levels through feedback loops, rather than centralized control. Finally, Morin (1990) positions sustainability as a structural dimension of performance, where long-term effectiveness depends on balancing economic objectives with social and environmental considerations.

Limits and perspectives

Despite its analytical richness, the systemic approach faces a key challenge: the operationalization of its findings. Checkland (1981) notes that the complexity of systemic interactions makes it difficult to establish clear causal relationships, complicating empirical measurements and managerial applications.

Three concrete directions can help to bridge this gap.

First, Kaplan and Norton (1992) and Figge et al. (2002) suggest that composite indicator dashboards combining financial, social, environmental, and learning metrics can make interdependencies visible without aggregating them into a single reductive score.

Second, Beer (1972) shows that structured feedback cycles embedded in governance mechanisms enable organizations to systematically assess subsystem alignment and adjust their configurations accordingly.

Third, Senge (1990) suggests that scenario-based simulation tools allow managers to anticipate emerging performance dynamics under varying environmental conditions.

These directions do not eliminate systemic complexity but provide actionable entry points for more adaptive and integrative management practices.

Conclusion

This study argues that organizational performance should be reconceptualized as a systemic construct emerging from the interaction between organizational subsystems and their environments. By integrating insights from systems theory, complexity theory, and organizational management, it has been shown that performance cannot be reduced to isolated indicators but must be understood as a dynamic, multidimensional, and context-dependent phenomenon.

The proposed viability-performance matrix offers an original integrative framework that bridges systems thinking and the performance literature. Theoretically, this challenges the reductionist approaches to organizational effectiveness. This calls for more integrative management systems capable of capturing interdependencies, feedback processes, and long-term sustainability dynamics.

In an increasingly complex environment, conceptualizing performance as a systemic construct appears not only as an analytical advancement but also as a necessary condition for effectively governing contemporary organizations.

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